Saskatchewan
Alcohol and
Drug Abuse
Commission

Treating Alcohol Problems

The Family Physician's Guide

Saul Cohen, M.D.

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revised edition of the Physician's Manual on Alcoholism

Saul Cohen, M.D.

Saskatchewan Alcohol and Drug Abuse Commission

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Saskatchewan Alcohol and Drug Abuse Commission
3475 Albert Street
Regina, Canada S4S 6X6

Dedication

To pioneers in the alcoholism field in Saskatchewan:

Angus Campbell, Elmer Hicks,
Dr. Sinclair Jamieson, and the late
J.F.A. "Jake" Calder, Clare Herriot,
Roy McCulloch, and Tommy Myers

To the Members of the Culliton Committee appointed on August 27, 1966, whose efforts led to the formation of the Alcoholism Commission of Saskatchewan, by an act of Legislation on March 19, 1968. The Commission formally took over the Bureau on Alcoholism on October 1, 1968, followed by the formation of SADAC (Saskatchewan Alcohol and Drug Abuse Commission) in May, 1985.

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Finally, this book would not have been possible without the patience and encouragement of my wife, Sheila.

Saul Cohen, M.D.

Preface

The purpose of this manual is to provide practising physicians with a practical guide to the treatment of alcohol-dependent people. It covers a wide variety of important and relevant topics, including:

- the management of medical complications;
- the importance of involving the family in the treatment plan whenever possible;
- the need to watch for signs that other addicting substances may be involved;
- the need to be alert to the possibility of child abuse or neglect; and,
- the importance for a physician (and presumably other treatment personnel) to be aware of and understand his/her own attitudes toward society's use of alcohol and toward alcohol-dependent patients.

The discussion of special needs of specific populations — elderly, youth, Native peoples, and others — is especially helpful.

For Native people, for example, full recognition is given to the fact that treatment approaches must be initiated and controlled by them, rather than imposed on them, and that Native cultural and spiritual values should be incorporated into the treatment plan.

The manual provides a pragmatic, concise but comprehensive guide to the diagnosis and treatment of alcoholism and associated physical, psychological, and social problems. While it is essentially for physicians, people in other healing professions, social workers, nurses, and psychologists in particular, will find the manual informative and helpful.

Dr. Saul Cohen has provided, in this book, a glimpse of his own great wisdom and admirable philosophy, together with practical advice to assist all who seek to help alcohol-dependent patients recover.

H. David Archibald
Chairman
Canadian Centre on
Substance Abuse

1 Introduction to Alcohol-Related Problems

Alcohol is a drug with mood-modifying and sedative properties. Its use is extensive in North America and represents a significant component of the lifestyle of most adults in our society. For the majority of people alcohol consumption is associated with positive experiences; for the minority who develop alcohol-related problems the consequences of alcohol consumption can be devastating.

Alcohol dependency is not specific to any one group but can be found among many different people from a broad spectrum of society, including people of all income levels and ethnic and racial backgrounds as well as of both sexes. In 1985 it was estimated that six per cent of the Saskatchewan population aged 15 years and older were problem drinkers.[1]

Explanations of alcohol dependency

Various models have been constructed to describe the phenomenon of alcohol dependency and how it should best be approached. Among these are the medical, behavioural, public health, and moral models. The medical model views the alcohol dependency syndrome as a chronic, relapsing, progressive disease which is treatable within a medical context. The behavioural model considers dependency to be the result of learned behaviour or habit. The public health model approaches dependency from a broader societal perspective; methods to prevent alcohol dependency include public education, focus on lifestyle, and the control of alcohol availability and consumption. Proponents of the moral model emphasize prohibition and punitive measures as the best way to deal with those individuals they perceive as morally deficient.

The major theories on which these models are based can be categorized as biological, psychological, socio-cultural, and moral. Biological theories view alcohol dependency as an individual susceptibility to alcohol due to genetic predisposition, endocrine dysfunction, abnormal brain or liver chemistry, improper utilization of nutrients, or other disturbances in body functioning. The Alcoholics Anonymous position that alcohol dependency is the result of an allergic reaction falls within this realm. Psychological theories see dependency as the product of childhood trauma, unconscious tensions, a conditioned response, or of an addictive personality and other personality problems. Socio-cultural theories view alcohol dependency as rooted in the social, cultural, and legal contexts in which alcohol consumption takes place. The moral theory holds that dependency is the product of individuals' moral failure.

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[1] *SADAC Fast Factsheet 87-5-1: Saskatchewan Drinking Patterns.* Regina: Saskatchewan Alcohol and Drug Abuse Commission, May, 1987.

Although there is no consensus among experts, there is agreement that alcohol dependency is a complex syndrome caused and exacerbated by many factors in varying combinations from individual to individual. There is also agreement that much is unknown about this syndrome, making attempts to define single underlying causes counterproductive and simplistic.

In the absence of more specific knowledge, the most constructive approach to the treatment of alcohol-dependent patients for the family physician is to view the alcohol dependency syndrome as a disease arising from multiple factors independent of a person's moral strength or weakness.

A summary of some of the factors that may play a role in individual cases of alcohol dependency follows:

Factors in alcohol dependency

- **Psychiatric.** In some cases psychiatric conditions such as schizophrenia, depression, and anxiety and personality disorders underlie alcohol dependency, with patients using alcohol in an attempt to control their symptoms.
- **Stressful situations.** Certain situations associated with extreme stress such as long-term unemployment, poverty, divorce, and the death of a family member may precipitate excessive drinking in some individuals.
- **Social and cultural.** Socio-cultural influences can be very powerful in the development of attitudes to alcohol use and drinking habits. These attitudes may help to determine how much alcohol people drink, how often they drink, where they drink, and for what purpose they drink.
- **Genetic.** Some studies indicate that in certain cases there is an inherited tendency towards alcohol dependency.[2]
- **Physiological.** Other factors which may influence dependency include metabolic disturbances. For example, the substance tetrahydroisoquinoline which increases alcohol craving has been found in the brain tissues of patients with chronic alcohol dependency. In physiologically susceptible individuals, poor nutrition may play a role in the development or continuation of alcohol dependency.

[2]Omenn, G.S. Invited Editorial: Genetic Investigations of Alcohol Metabolism and of Alcoholism. *American Journal of Human Genetics*, 1988, *Vol. 43*, pp. 579-581.

The complex nature of alcohol dependency, as illustrated by the above, requires that each patient be treated individually; a formula approach to the treatment of dependency will be less effective than an individualized approach.

Consequences of alcohol dependency

The negative individual and societal consequences associated with alcohol dependency include the following:

- Shortened life expectancy and deteriorating physical health due to medical complications such as alcoholic cirrhosis and nutritional deficiencies; increased risk of suicide; and injuries and fatalities as a result of car crashes, falls, exposure, fires, and other accidents.
- Psychiatric problems such as depression and confusion.
- Social and personal difficulties such as marital, employment, legal, and financial.
- Lowered fertility and children with fetal alcohol syndrome.
- Increased probability of violence including physical and sexual abuse of family members and assaults.
- Increased health costs due in part to the number of beds taken up by alcohol-dependent patients in psychiatric facilities and general hospitals as well as requirements for services specific to drug- and alcohol-related problems.
- Lowered productivity in the work place.

It is clear that alcohol consumption can have devastating effects on individuals, their families, and society in general. Because of this it is imperative that communities become informed about the issues involved and take appropriate measures to ameliorate and prevent alcohol-related problems. The physician has an important role to play in this task through patient education, early diagnosis, effective treatment, appropriate referral, and the influence of public policy.

Statistical summary of negative consequences associated with alcohol involvement

The involvement of alcohol in a particular event does not itself imply that alcohol was the direct cause of the event. Alcohol involvement is best viewed as a contributory element in a cluster of interrelated factors.

All percentages cited are for Saskatchewan.

- 49 per cent of fatal traffic accidents in 1987 had alcohol involvement.[3]
- 43 per cent of all fatal non-traffic accidents to persons 15 years and over in 1986-1987 had alcohol involvement; 55 per cent of fatalities due to exposure had alcohol involvement.[4]
- 47 per cent of suicides in 1985-1986 had alcohol involvement (29 per cent alcohol only and 18 per cent alcohol and other drugs).[5]
- An estimated 2 per cent of deaths by internal causes (such as heart disease and alcoholic cirrhosis) in 1985-1986 were attributable to excessive alcohol consumption.[6]
- At a minimum, 3 per cent of hospital separations for persons 15 years and over in 1984-1985 were for alcohol- and drug-related problems; 1 per cent of non-hospital patients were treated for alcohol- or drug-related problems.[7] (Percentages are likely significantly higher due to underreporting.)
- It is estimated that 54 per cent of cases of sexual assault and over 70 per cent of other categories of assault in 1986 were alcohol related.[8]

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[3]*SADAC Fast Factsheet 88-09-2: Fatal Alcohol Related Traffic Accidents Saskatchewan, 1987.* Regina: Saskatchewan Alcohol and Drug Abuse Commission, Sept., 1988.

[4]*SADAC Mortality Study: Technical Report II.* Regina: Saskatchewan Alcohol and Drug Abuse Commission, Sept., 1988.

[5]*SADAC Research Report: Suicide in Saskatchewan: The Alcohol and Drug Connection.* Regina: Saskatchewan Alcohol and Drug Abuse Commission, 1988.

[6]*SADAC Mortality Study: Technical Report I.* Regina: Saskatchewan Alcohol and Drug Abuse Commission, 1988.

[7]*SADAC Community Profile,* unpublished. Regina: Saskatchewan Alcohol and Drug Abuse Commission, 1984/85.

[8]*SADAC Research Report: Legal Offences in Saskatchewan: The Alcohol and Drug Connection.* Regina: Saskatchewan Alcohol and Drug Abuse Commission, 1989.

2 Diagnosis of Alcohol-Related Problems

The earlier the diagnosis of alcohol-related problems is made in a patient, the better the prognosis. Unfortunately, many alcohol-related problems are not identified until serious damage to health, family, and community has occurred.

To prevent this situation, it is important for the physician to:

To improve early diagnosis rates

- Understand that anyone can have alcohol-related problems regardless of age, sex, income level, racial background, occupation, or appearance.
- Deal with any personal discomfort around issues connected with alcohol.
- Become aware of early, as well as late, diagnostic clues (see page 10).
- Recognize when patients have erected defences which may give misleading impressions about the presence of alcohol-related problems.

By screening routinely for alcohol-related problems and becoming familiar with signs and symptoms, the family physician can play a key role in early detection.

General screening and identification

A general screening for alcohol-related problems should be part of every examination whether or not there are any obvious indications of such problems; these indications are often not visible until actively sought. In other words, it is important to include a few brief questions about alcohol use in the medical examination, be aware of who is a high-risk patient, and be alert to warning signs discovered either in the patient's history (medical, social, or family) or during the physical examination.

Questions about alcohol use

Questions about alcohol consumption should be included as part of the personal history-taking of patients, along with questions about exercise, diet, use of coffee, tobacco, and non-prescription drugs, and other aspects of lifestyle. It is best to ask these questions in a matter-of-fact manner, in the same way that questions about menstruation and bowel movements are asked. Expressing a sympathetic and nonjudgemental attitude in words, tone of voice, and body-language considerably increases the likelihood of full and honest responses.

When interpreting answers, the physician should note both the content and the style of the answers. Crucial information is often gained by being sensitive to nuances, such as signs that patients

are concerned about their drinking and would like to discuss worries more fully; are uncomfortable with the subject and would like to end the discussion; are being evasive, hostile, or defensive. In any of these cases the situation should be explored more fully.

Patients who are alcohol dependent are often defensive about their drinking and find it difficult to sort out what is true or false concerning their alcohol usage and its consequences. For these reasons they may quickly deny any problems and give less than straightforward answers to questions about drinking habits. Denial systems (see page 20) are extremely common in alcohol-dependent patients, and the physician should judge the responses to questions about alcohol accordingly.

In some cases, directly questioning patients on their drinking may create a defensive response where patients misrepresent the amount they drink and rationalize their reasons for drinking.

On the other hand, some physicians routinely ask questions about amounts consumed and encounter little hostility, though occasionally they may find that persistence is required in order to get specific information.

Initially, a reasonable question to ask is, "How much do you spend on alcohol in a week?" This can be followed by, "How much do you drink in a week?" If answers are vague, follow-up questions might be, "Do you drink on weekday mornings, at noon, or at or after work? How much do you drink on weekends? How many times a month do you get stoned on alcohol?"

It is important to keep in mind that the quantity of alcohol consumed is only one indicator of alcohol-related problems. Other indicators such as the degree of social difficulties must also be considered when making a diagnosis.

Other questions that might be asked about alcohol use include the following:

Questions to ask about alcohol use

- What time of the day do you feel you have to have a drink?
- Where do you drink?
- With whom do you drink?
- Why do you drink?
- Do you have any problems related to alcohol?
- Have you ever had a Driving While Impaired (DWI) charge?

In the answers to the above questions, the physician should look for indications that alcohol is being used for purposes other than social (for example, either as a "medicine" to induce sleep, or as a drug to get high), or that alcohol is playing a central role in patients' lives (for example, they look forward to drinking, centre their leisure activities around drinking, and drink frequently).

Answers to the question "why do you drink?" are often very revealing:

"I drink because it's good for my nerves."

"I drink because whenever I get upset, I find if I drink I feel better."

"You know, doctor, I think that I drink too much, now that you ask me about drinking. I may drink too much at times."

Responses such as these indicate the possibility of alcohol-related problems and should be investigated further.

CAGE

CAGE is a set of four questions often used routinely by physicians for screening purposes:

- Have you ever felt you ought to **C**ut down on your drinking?
- Have people **A**nnoyed you by criticizing your drinking?
- Have you ever felt bad or **G**uilty about your drinking?
- Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover? ("**E**ye-opener")[1]

[1]Mayfield, D., McLeod, G., Hall, P. *American Journal of Psychiatry*, 1974, *Vol. 131*, pp. 1121-3.

Risk factors

Factors which indicate that patients are at increased risk of developing alcohol-related problems are listed below.

- **Family history of alcohol dependency.** Children of alcohol-dependent parents are more likely than others to develop alcohol dependency.
- **Heavy alcohol-consuming cultural background.** For example, those of French, Irish, Italian, and Russian background are more likely to have patterns of heavy liquor consumption.
- **Existence of severe personal or social problems or stresses.** Divorce, unemployment, the death of someone close, retirement, and other stressful situations put some people more at risk.

Warning signs

Certain warning signs may indicate the presence of alcohol-related problems. While other causes may be at the root of these signs, the possibility of alcohol-related problems should be considered. Warning signs can be physical, emotional, or behavioural. Certain drinking patterns and the distress of family members are also possible indicators of alcohol-related problems. A list of warning signs and indicators follows. (See box on page 10 for a list of early warning signs.)

Physical

- *Inadequately explained injuries or trauma:* fractures; burns; bruises; scars not due to surgery. Those with alcohol-related problems tend to have more accidents than others. Also, some scars may be due to previous suicide attempts.
- *Skin:* facial swelling and puffiness; palmar erythema; DuPuytren's contractures; acne rosacea; finger-nail changes; telangiectasis; spider nevi; rhinophyma; jaundice; and scars on the wrist, antecubital, and neck areas. Many of these signs are due to liver disease.
- *Genitourinary:* polyuria; sexual dysfunction; amenorrhea; occasional proteinuria; testicular atrophy; gynecomastia.
- *Cardiovascular:* unexplained tachycardia; palpitations; hypertension; cardiomyopathy; non-specific EKG changes.
- *Respiratory:* aspiration pneumonia; pulmonary fibrosis; tuberculosis.
- *Gastrointestinal:* dyspepsia; gastritis; GI bleeding; esophageal varices; Mallory Weiss erosions; hepatitis; fatty liver; cirrhosis; pancreatitis; esophagitis; ulcers; early morning nausea and vomiting; loose stools or diarrhea; hepatomegaly.
- *Central nervous system:* general intellectual impairment; withdrawal symptoms such as tremors and delirium tremens; Wernicke-Korsakoff syndrome; peripheral neuropathy; cerebellar disease; seizures.
- *Other medical problems:* fetal alcohol syndrome in children; cancer (of the larynx, esophagus, liver, bladder, lungs); nutritional deficiencies (beriberi, pellagra); gout; adult onset diabetes; periodontal disease.

Psychiatric

- *Depression; suicide attempts; anti-social behaviour; anxiety; insomnia and nightmares; hallucinosis.*

Behavioural

- *Marital difficulties:* separation; divorce; spouse abuse.
- *Employment anomalies:* frequent changes of job; jobs which are at odds with education and ability; frequently tardy or absent.
- *Social life concentrated on drinking friends and drinking activities.*
- *Legal problems:* impaired driving charges; assault; shoplifting.
- *Multi-drug use:* prescribed tranquilizers, analgesics, and sleeping pills; cigarettes; over-the-counter medications and illicit substances; frequent requests for drug prescriptions.
- *Non-co-operation in physician's office:* negative attitude; missed appointments.

Family

- *Concern of spouse or other family member about patient's drinking.*
- *Evidence of child or spouse abuse.*
- *Spouse displaying symptoms:* psychiatric (depression, anxiety) or physical (headaches, neurodermatitis, asthma attacks, stomach problems).
- *Children displaying symptoms:* emotional; learning or behavioural (acting out, running away, doing badly at school); or physical (fatigue, headaches, stomach-aches).

Drinking patterns

- *Drinks heavily with frequent episodes of intoxication and blackouts.* (See page 10 for discussion of drinking levels.)
- *Has stopped drinking, is attempting to stop, or has previously made unsuccessful attempts to stop*
- *Preoccupation with drinking:* in conversation, recreational activities, choice of friends.
- *Concern about drinking.*
- *Rationalizations for drinking.*
- *Drinks quickly.*
- *Eats lightly or not at all when drinking.*
- *Increased tolerance to large quantities of alcohol or recent loss of such tolerance.*

Diagnosis

If results of a preliminary screening indicate that alcohol may be a problem, or if patients express concern about their drinking, the physician should take a complete alcohol history, look for specific target organ damage, and consider laboratory tests to confirm the presence of alcohol-related problems. If possible, it is best to involve the patients' families in this investigation from the very beginning.

Knowing how long and in what quantities patients have been drinking may provide clues about the amount and location of physical damage. For this reason the following questions are helpful to include in a complete alcohol history:

Questions to include in a complete alcohol history

- What do you drink mainly — beer, wine, spirits, or nonbeverage alcohol?
- How much are you drinking now — how many bottles of beer, glasses of wine, and so on? (See page 11 for conversion measures.)
- Is that every day? On weekends? Or do you drink in binges?
- How long have you been drinking these amounts?

It is important to be aware that there are basically two patterns of drinking among those with alcohol-related problems. One is continuous, where patients drink regularly throughout the week, and the other is episodic, where patients have periods of abstention or moderate drinking in between bouts of heavy drinking.

When interpreting levels of alcohol consumption, it is useful to note that, "Most individuals regarded as alcohol dependent drink the equivalent of more than 120 g of absolute alcohol per day. The intake of 80 g or more of absolute alcohol per day is usually defined as 'hazardous'; it is generally accepted that women are vulnerable to lesser quantities."[2]

Early signs of alcohol-related problems

Symptoms of the late stages of alcohol-related problems are well known but early signs are often ignored. It is important to keep in mind that long before medical complications such as cirrhosis of the liver set in, there are earlier indications of alcohol-related problems. Early warning signs include the following:

- **Physical symptoms:** inadequately explained injuries including trauma and scars not related to surgery; gastrointestinal problems such as dyspepsia, hepatomegaly, morning nausea and vomiting, and pancreatitis; hypertension; palpitations; hand tremors; impotence.
- **Psychiatric symptoms:** depression; suicide attempts; insomnia and nightmares.
- **Social difficulties:** marital; employment; legal; etc.
- **Family distress:** spouse and children suffering from physical, emotional, and behavioural symptoms.
- **Unhealthy drinking patterns:** heavy drinking; concern of self or others about drinking; increased tolerance; gulping drinks; eating lightly or not at all when drinking; using alcohol to deal with stress; driving while impaired.
- **Other:** alcohol on breath; tongue coated from use of breath fresheners; recreation and friends alcohol-centred; frequent cancellation of office appointments.

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[2]Devenyi, P., Saunders, S.J. *Physicians' Handbook for Medical Management of Alcohol- and Drug-Related Problems.* Toronto: Addiction Research Foundation & Ontario Medical Association, 1986.

It should be kept in mind that alcohol affects everyone differently. Some people will become dependent or suffer complications at lower levels of consumption than those stated above. Research indicates that even low levels of consumption such as 12 drinks a week may be associated with the development of liver damage and social dysfunction.

Some of the factors which increase the risk of damage due to alcohol consumption are as follows:

Risk factors for alcohol-related damage

- **Sex.** Women are more vulnerable because they have lower fluid content.
- **Age.** The elderly are more vulnerable because of multiple diseases, multiple drug use, and metabolic changes which make them more sensitive to alcohol.
- **Size.** Individuals who are smaller are more at risk.
- **Heredity.**
- **Drinking on an empty stomach.**
- **The presence of medical problems.** These may include high blood pressure, gout, and diabetes.

Alcohol equivalents

amount of ethanol	*beer*	*spirits*	*wine*	*fortified wine*
80 g	6 bottles	9 ounces	24 ounces	18 ounces
120 g	9 bottles	13.5 ounces	36 ounces	27 ounces

Distinguishing between alcohol dependency and early problem drinking

The category "alcohol-related problems" includes both early problem drinking and alcohol dependency. It is sometimes important to make a distinction between a patient who is in the early stages of developing problems related to drinking and one who is alcohol dependent, because the type of intervention required in each case may be quite different. Unfortunately it is not always an easy distinction to make; often it is more a matter of degree with no obvious dividing line between dependency and problem drinking. However, the following guidelines may be useful.

Early problem drinkers:

- Drink amounts of alcohol which put them at physical risk of medical complications (see page 10).

- May suffer some emotional, social, or other difficulties as a result of their drinking but not to the point where their lives are disrupted to a major extent.
- Show no signs of physical withdrawal.
- Are able to stop drinking at will (i.e., there is no loss of control).
- Tend to be younger, more socially stable, and have a shorter drinking history.

Laboratory markers

The laboratory markers most indicative of alcohol dependence as discussed by Dr. J. Alan Gilbert[3] follow:

- Macrocytosis — MCV greater than 100 in the absence of anemia is frequently due to alcohol induced inhibition of folic acid absorption.
- Elevation of gamma glutamyl transpeptidase is probably the best single test for alcoholism. This enzyme has a very long half-life, and thus is useful in detecting recent and relatively remote drinking. Elevation of other liver enzymes such as aspartate transaminase (AST) and serum glutamate pyruvate transaminase (SGPT) are less reliable.
- Elevation of high density lipoprotein (HDL), often an accompaniment to moderate drinking, tends to become depressed with very heavy drinking.
- A low blood urea nitrogen level due to inability of the liver to convert ammonia to urea is an additional late indication.
- Blood alcohol concentration taken as a random sample and exceeding 17 mmol/L is usually diagnostic of alcoholism, as is a level of 30 mmol/L in the absence of obvious impairment.

Concerning these markers, Dr. Gilbert comments further that, "With the exception of the blood alcohol level, each of these tests, although relatively sensitive, lacks specificity. Thus, the diagnostic value of a battery of these tests greatly outweighs that of a single test."

Thrombocytopenia is another marker to look for. It is also useful to check serum uric acid level (look for elevations) and for Type IV hyperlipoproteinemia. (The latter may be useful in predicting patients at risk of developing cirrhosis of the liver.)

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[3]Gilbert, J.A. Diagnosing alcoholism. *MEDICINE North America 16*, Dec., 1987, pp. 3046-3053.

Alcohol-dependent drinkers:

- Drink amounts of alcohol which put them at physical risk of medical complications (see page 10).
- Suffer emotional, social, or other difficulties ranging from moderate to severe.
- Show signs of either psychological or physical dependence. The characteristics of physical dependence include increased tolerance and withdrawal symptoms.
- Demonstrate loss of control. In other words, patients are unable to control when they drink or how much they drink, despite the negative consequences of their drinking. Loss of control is one of the most important criteria in distinguishing between dependence and non-dependence.

Discussing the diagnosis

Where appropriate, patients who are alcohol dependent or who show signs of other alcohol-related problems should be informed of the diagnosis in the presence of other family members to ensure clear communication between everyone concerned.

The physician should be straightforward and direct when discussing the diagnosis. Being well-prepared with results of lab tests and other evidence is also important.

Diagrams of the damage alcohol is doing to the body are helpful. Drawing a picture of the location of ulcers and esophageal varices in the stomach and the duodenum is often more effective than a lengthy explanation.

Physicians must use their own judgement concerning which terminology to use with patients. For example some older patients might be put off by a discussion of "alcoholism". If patients appear likely to be frightened or apprehensive of terms such as "alcoholism" or "alcohol dependency", it is best to use other terminology such as "problem drinking" instead.

3 Management of Withdrawal

All those who are physically dependent on alcohol experience withdrawal once alcohol consumption ceases. There are two scenarios in which withdrawal might occur: in a planned situation as a treatment prerequisite, or due to unplanned circumstances (for example, during hospitalization for other illness or surgery). In either case early recognition of symptoms is extremely important, as prompt, effective treatment can prevent serious and potentially lethal complications.

Because unrecognized withdrawal is a common occurrence in those undergoing elective or emergency orthopedic or general surgery, blood alcohol levels and liver function of these patients should be checked routinely when admitted to hospital.

Minor and major withdrawal

The withdrawal syndrome in acute alcohol dependency can be classified as either minor or major. It should be noted that not all of the symptoms listed below will necessarily occur, the order of presentation may differ, and there may be overlap between the two categories. In addition, the intensity of the symptoms can vary considerably from mild to severe. Severe cases of withdrawal can result in death.

Withdrawal symptoms

Minor withdrawal: tremulousness; sweating; rapid pulse; high blood pressure; insomnia; nausea; vomiting.

Major withdrawal: high fever; extreme agitation; cardiac complications (severe hypertension, arrhythmias); convulsive seizures (rum fits) one to two days or longer after cessation of drinking. Delirium tremens, which can be fatal, consists of the previous symptoms as well as intense hallucinations and severe confusion and disorientation occurring two to five days after cessation of drinking.

Emotional symptoms that commonly occur during the withdrawal period include feelings of anxiety, depression, guilt, and inadequacy.

Out-patient management of withdrawal

Criteria for out-patient management of withdrawal

- Cessation of drinking.
- Relatively mild symptoms.
- No previous history of seizures or delirium.

Out-patient management of withdrawal can occur in an out-patient clinic, physician's office, or in some cases at home.

It is best to avoid medication if at all possible. Emotional support is often all that is necessary when patients are in the early stages of withdrawal and there are no signs of seizures or hallucinations.

Use of medication in out-patient management

If it appears that medication is necessary, sublingual or oral lorazepam, oral chlordiazepoxide, or diazepam can be considered along with thiamine. Relatives, friends, or out-patient staff members can be helpful in monitoring the safe use of such drugs.

Whether or not medication is used, the supportive company of a sympathetic individual is extremely important.

Management of withdrawal in a detox centre

Criteria for management of withdrawal in a detox centre

- No indications that hospitalization is required.
- Lack of social support systems.

Detox centres are generally designed to provide an atmosphere more social and less institutional than is found in hospitals. Patients live on the premises for an average of ten days, receiving support and medication as required.

Hospital management of withdrawal

Criteria for hospital management of withdrawal

- Severe symptoms such as persistent hallucinations, delusions, and disorientation.
- Associated medical or surgical illness.
- History of previous seizures.
- Psychiatric problems.

In the hospital it is important to provide a reassuring, non-stimulating environment. A quiet room, supportive nursing staff, and the presence of a friend or other sympathetic person helps ease the period of withdrawal. Other points to consider in hospital management of withdrawal are listed below.

Hospital management of withdrawal

- Avoid physical restraint as much as possible.
- Order constant nursing care when delirium is unresponsive to therapy.
- Screen for complications when symptoms last over five days.

- Treat infections promptly.
- Correct electrolyte and fluid balance and replenish vitamins.
- Avoid paraldehyde, narcotics, amphetamines, and barbiturates.
- Suspect hypoglycemia in comatose patients with a history of prior major alcohol intake.
- Look for hidden gastrointestinal hemorrhage in patients with anemia.
- Beware of first time seizures occurring in alcohol-dependent patients over 40. Screen carefully for previous or current head injury, latent epilepsy, or co-existent brain tumour. Also keep in mind that seizures and delirium can occur as a result of either alcohol withdrawal or withdrawal from other drugs.

Establishing a baseline

The following tests are useful in establishing a baseline: CBC; urinalysis; SMAC-20; chest x-ray; cardiogram; serum amylase; serum GGT and CPK; along with routine stat blood sugar, blood alcohol levels, and serum magnesium.

Electrolyte, vitamin, and fluid replacement

Generally oral fluids are sufficient. Intravenous fluids are necessary only with evidence of dehydration.

If required, intravenous fluids should be given as 1000 cc of 1/3 - 2/3 at between 100 to 150 cc/hr. alternating with 1000 cc of 10 per cent glucose in water, reinforced wth electrolytes such as potassium 20 to 40 M.Eq. per litre as needed and 4 cc of a vitamin B-complex and vitamin C preparation such as Berroca-C in each litre.

When patients are able to swallow, they can be given one oral B-complex with C capsule three times a day and I.M. thiamine 100 mg once a day for five days minimum, then oral thiamine 100 mg once a day till further notice.

If patients are comatose due to hypoglycemia it may be necessary to administer 50 cc of 50 per cent dextrose in water intravenously.

Hypokalemia can often accompany the profound respiratory alkalosis seen in these patients, requiring particular attention to replacement therapy. The replacement of magnesium is necessary in a few instances to further raise the seizure threshold.

Use of medication

A discussion of the use of medication to produce specific results during withdrawal in a hospital setting follows.

Sedation

Benzodiazepines such as diazepam (Valium) and chlordiazepoxide (Librium) are generally the best medications for sedating patients undergoing withdrawal. However benzodiazepines are themselves highly addictive and long-term use must not occur. Contraindications include underlying acute hepatic decompensation and pregnancy. Drugs with a shorter half-life such as oxazepam (Serax) or lorazepam (Ativan) should be used in cases of severe liver dysfunction.

Benzodiazepines should be given orally or intravenously rather than intramuscularly to enhance bioavailability.

The dosage prescribed depends on the severity of patients' symptoms. A calm drowsy state is the objective. For the first 24 hours medication is given every three to four hours, up to 1600 mg of chlordiazepoxide or 320 mg of diazepam depending on individual requirements. The dose is then reduced gradually after the first three to four days to avoid accumulation, for example by 25 per cent each succeeding day.

An alternative method is the loading technique recommended by the Addiction Research Foundation where 20 mg diazepam an hour is given in three doses. Since the drug half-life is 48 to 52 hours the diazepam smoothes out symptoms, reduces seizures, and reduces the need for phenytoin. However the loading technique should be used cautiously with patients who have chronic lung or heart disease as respiratory arrest may occur. It should not be used in an out-patient setting.

Control of hallucinations

Haloperidol (Haldol) is the best medication for control of hallucinations and can be given orally or intramuscularly.

The suggested dosage is 2 - 5 mg every one or two hours up to five doses, followed by a review.

If trismus occurs benztropine (Cogentin) can be given, orally or intramuscularly, 2 mg every 12 hours as needed.

Control of hyperadrenergic state

Beta blockers such as propranolol (Inderol) and atenelol (Tenormin) are effective in reducing tremor, blood pressure, heart rate, and catecholamine levels during anxiety and panic attacks related to alcohol withdrawal. They should not be given to those with asthma, chronic obstructive airway disease, or insulin-dependent diabetes. The dosage of propranolol for control of hyperadrenergic states is 40 to 80 mg, four times a day; the dosage of atenelol is 50 to 100 mg twice a day.

Control of seizures

Diazepam is the best medication for control of seizures and should be given intravenously. Sometimes phenytoin (Dilantin) can be used in addition to diazepam.

Optimal results with phenytoin are obtained by administration of an intravenous loading dose 10 mg per kg body weight infused at a rate not exceeding 50 mg per minute to avoid significant hypotension. Oral doses of 300 mg may be given on a once-a-day basis, and can be prescribed for the duration of the withdrawal period. Generally this will be 7 to 10 days for an alcohol-only dependency, and 14 to 21 days for mixed alcohol-drug dependencies.

Withdrawal from alcohol in combination with other drugs

In many cases patients are dependent on other drugs in addition to alcohol. These drugs can be withdrawn simultaneously over a course of 14 to 21 days with stepladder reduction.

4 The Doctor-Patient Relationship

A constructive and positive doctor-patient relationship is critical in the successful treatment of alcohol dependency. Some of the factors involved in the relationship follow.

Role of the family physician in treatment

The physician's role in the management of alcohol dependency is variable, ranging from treatment of patients in the office to the referral of patients to formal treatment programs. The degree of involvement depends on the physician's interest in the treatment process, each individual patient's needs and preferences, and the availability of community resources.

The physician should refer patients requiring intensive treatment to formal alcohol and drug specific treatment programs. Even after referral, however, it is important to maintain contact with patients and remain available to them as their family physician.

It is not necessary to refer patients with less serious problems. Treatment options that can be managed by the family physician include a controlled drinking program (see page 27), counselling of patients and their families (page 26), and a program of disulfiram (page 28). All of these can be combined with the use of community resources such as out-patient treatment programs, self-help groups including Alcoholics Anonymous, Al-Anon, Alateen, Adult Children of Alcoholics, and mental health clinics.

Developing a rapport

A crucial aspect of the relationship between physician and patient is the development and maintenance of rapport. The physician can help build rapport by being supportive and non-judgemental, expressing warmth and concern for the patient's welfare. A strong rapport enables the physician and patient to work together against the disease rather than against each other.

Understanding the alcohol-dependent patient

Working with alcohol-dependent patients is often a challenge. They are more likely than other patients to miss appointments, neglect medication, demand immediate attention, and behave in an unco-operative and hostile manner.

Unless reasons for this behaviour are understood by the physician, treating alcohol-dependent patients can be extremely frustrating. The primary factors influencing the behaviour of alcohol-dependent patients are presented below.

Dependency

The thought of giving up alcohol is extremely threatening to patients with a severe dependency; such individuals may feel that

a day without alcohol is not worth living. Alcohol controls all aspects of life and everything takes second place to the compulsion to drink. At least temporarily alcohol obliterates emotional pain and makes the complications of everyday living appear more manageable, while the severe problems it causes generally remain unrecognized. Often both psychological and physical dependencies are involved, compounding the difficulties of overcoming the dependency.

Denial

Many alcohol-dependent patients do not recognize the destructive role alcohol dependency is playing in their lives, allowing them to continue drinking without compunction. Denial is usually unconscious; it often results in distorted perceptions, impaired judgement, and loss of insight. The deceptions that result from denial, deliberate or not, can make communication and treatment more difficult.

The denial process consists of a variety of defences which deflect any suggestion that alcohol consumption be reduced. For example:

Examples of denial

- *Simple denial.* Patients maintain there is no problem.
- *Placing the blame elsewhere.* Patients blame others for their negative behaviour rather than have their involvement with alcohol implicated.
- *Hostility.* Patients become angry, irritable, or short-tempered when reference is made to their use of alcohol and related behaviour.

Unless the defences which comprise the denial system are weakened, patients will not be willing or able to accept help.

Intellectual impairment

The consumption of large quantities of alcohol may cause general confusion and affect memory, concentration, perceptions, and judgement. The physician should take the possibility of intellectual impairment into consideration when taking a history, discussing the diagnosis, and explaining treatment options.

Negative feelings

A great deal of sensitivity is required when working with alcohol-dependent patients due to their frequent feelings of depression combined with embarrassment, guilt, and low self-esteem. If these are not recognized, patients' behaviour may be misinterpreted by the physician. The aim should be to replace negative feelings with positive ones such as optimism and self-acceptance.

Depression (see page 46) must be taken very seriously because of the possibility of suicide (page 25).

Self-awareness by the physician

A certain amount of self-awareness is required to enable the physician to treat alcohol-dependent patients as effectively as possible. Some of the issues that may need to be resolved follow.

Attitudes to alcohol and alcohol-dependent patients

Negative attitudes towards alcohol-dependent patients are still common. One example which can have serious consequences is the view that alcohol-dependent patients are untreatable and beyond help. Such an attitude interferes with the doctor-patient relationship and can preclude any attempt at outlining treatment options.

Much more constructive is an attitude of optimism; when combined with a good rapport, an optimistic approach will often be the critical factor in motivating patients to co-operate with treatment and stay sober.

Another example of a negative attitude, based on negative stereotyping of alcohol-dependent individuals, is the assumption held by some physicians that patients who are of a similar or higher social status, follow a similar lifestyle, or are personable and articulate, are unlikely to have alcohol-related problems. The result may be under-diagnosis of alcohol-related problems among this group of people.

Attitudes towards alcohol may also need to be examined. On the one hand, physicians who feel that any alcohol consumption is harmful may mistakenly attribute all problems to alcohol in addition to being overly critical of their alcohol-dependent patients. On the other hand, physicians who drink heavily themselves may miss diagnosing cases of alcohol dependency and minimize the seriousness of alcohol-related problems.

Setting realistic goals

To avoid feelings of anger, disappointment, and frustration when patients start to drink again, the physician must set realistic treatment goals. This involves recognition of two concepts. The first is that relapse can be a positive learning experience for patients and is an integral part of the disease; the second is that recovery is often an ongoing lifelong process.

It must also be recognized that there are limits to what individual physicians can do for their patients. If physicians feel uncomfortable with any area of treatment the best course for them is to refer patients to back-up resources in the community.

Fear of confrontation

The physician may hesitate to confront patients, partly for fear of alienating them and partly for fear of provoking a hostile reaction. However, confrontation is sometimes necessary for the well-being of patients and should not be avoided.

What to tell the patient

When alcohol dependency has been diagnosed, there are a number of points physicians should discuss with their patients:

The negative consequences of drinking

Patients should be informed of the specific physical, emotional, and social damage they are suffering due to their alcohol consumption.

The benefits of sobriety

The benefits of sobriety should also be explained. For one patient sobriety might halt the course of liver disease, for another it might prevent marital breakup. A positive view of the situation is extremely important.

The necessity for abstinence

Patients should understand that their problems are unlikely to be solved until they stop drinking and that total abstinence is required to deal with alcohol dependency. However it is sometimes best to discuss sobriety in terms of "one day at a time" rather than "forever".

In some cases a series of office visits will be necessary before a patient will accept the need for abstinence.

The dangers of withdrawal

Patients must be informed about the possibility of withdrawal and its symptoms. Potentially lethal situations can occur when alcohol-dependent patients unintentionally withdraw from alcohol, for example when admitted to hospital for surgery. It is crucial that patients and their families recognize the importance of alerting medical staff to the existence of the dependency so that preventive measures can be taken.

The disease concept

Patients should understand that alcohol dependency is a disease rather than the result of a lack of will power. The definition of the disease should be in its broad sense, recognizing that both sobriety and improving the quality of life are important to the recovery process. Patients should also be aware that they have a direct role to play in their recovery and that they must not abdicate all responsibility for this recovery to the disease.

Treatment options

All available treatment options should be presented to patients. Having several choices ranging from receiving out-patient counselling and taking disulfiram to entering an in-patient treatment program increases the chances that at least one will be found acceptable.

How to intervene

When alcohol-dependent patients refuse to accept a diagnosis of dependency there are three methods to choose from which may

result in their co-operation with treatment: confrontation, using a crisis, and legal intervention.

Confrontation

Confrontation is sometimes successful in getting patients to accept that they have an alcohol dependency harmful to themselves and those close to them.

Confrontation sessions should be planned carefully in advance, taking into account patients' individual characteristics and situation. Possible responses and ways to counter these responses should be considered. Sometimes more than one session may be necessary.

The first step in confrontation is to verify the problem by presenting evidence from different sources such as family, social and work histories; the physical examination; and laboratory tests. This presentation should be clear, firm, and objective. In addition, it is important for those doing the confronting to communicate their care and concern for the patient.

The second and third steps are to outline suitable treatment options and explain the consequences that will occur if patients refuse treatment. Possible consequences might include loss of employment, loss of family, loss of health, or loss of driving privileges.

Patients can be successfully confronted by a number of different people, ranging from family members to clergy and employers. Confrontation by the physician should occur only after a strong bond and a feeling of trust have been developed with the patient.

Being confronted face to face by family, friends, or others, who not only bear witness to the negative effects of alcohol on the patient but are themselves victims of these effects, often has a strong emotional impact which works well to penetrate denial.

It should be kept in mind that confrontation is not suitable for everyone. Contraindications include very low self-esteem, extreme aggression, psychosis, and brain damage.

Using a crisis

The idea that those with an alcohol dependency cannot be helped until they hit bottom is inaccurate. Many can be helped much earlier through counselling, confrontation, and other techniques. Some, however, may not accept the necessity for immediate action until they are faced with a crisis such as the threat of family separation or loss of job. The physician should help patients recognize the seriousness of the situation and the consequences of continued drinking. In this way the physician can highlight crises before they occur.

Legal intervention

In cases where patients are a danger either to themselves or others but refuse examination or treatment, legal intervention may be necessary (see page 84 in the Appendix).

5 Treatment of Alcohol Dependency

There are two major goals in the treatment of alcohol dependency. The first is to achieve sobriety where possible, and the second is to improve the over-all quality of life. How the physician can help patients reach these goals is discussed in this chapter.

Assessment

A thorough assessment is critical to determining an effective treatment plan. During the screening and diagnosis process the physician will have assessed a patient's physical, emotional, and social needs. (Social needs relate to family and other relationships, employment, education, finances, level of lifeskills, recreation, and the legal system.) The physician will also have evaluated how motivated the patient is to overcome the dependency. In addition, it is very important to assess any tendencies towards suicide and violence (see boxes on pages 25 and 26).

Patients requiring assessments beyond the scope of the family physician, such as psychiatric and vocational assessments, should be referred to other professionals (see resource section on page 90 in the Appendix).

Detoxification

Detoxification is the first step in treatment for those who are dependent on alcohol. Because withdrawal can have serious consequences, it must be done very carefully. (See Chapter 3 for a discussion on the management of withdrawal.)

Treatment components

A treatment program works best when it is individualized to each patient's needs. Treatment of the alcohol-dependent patient by the family physician may contain any of the following components:

Identification and control of precipitants

It is crucial to examine the specific role alcohol plays in patients' lives so that precipitants of drinking can be identified. This includes discovering the positive effects alcohol has for patients, which situations patients usually drink in, who they usually drink with, and what factors are most likely to make them want a drink.

Once precipitants are identified, the next task is to work out strategies for their control. Examples include learning how to effectively refuse drinks, discovering methods of relaxation to replace alcohol, changing jobs, and finding new groups of friends.

Assessment of suicidal tendencies

Suicide is very common among alcohol-dependent patients. This is partly because of the high rate of depression associated with the dependency (many times a direct result of it) and partly because alcohol impairs judgement and increases impulsivity, making suicide more likely when patients are intoxicated.

The physician should routinely ask alcohol-dependent patients if they are depressed and if they ever think about committing suicide. If the answers are affirmative, then patients should be asked if they have a plan and what the details are. Often patients will be open about their feelings and thoughts when asked directly. Many in fact will find it a great relief to be able to discuss the subject with someone.

If, in the physician's judgement, a patient is at serious risk of imminent suicide, immediate intervention is required. High-risk patients include those who have formulated a workable plan for suicide as well as those who have nothing to live for in terms of close relationships, satisfying work, or other positive aspects to life.

Those less at risk should receive counselling. Another preventive measure to consider is a contract wherein the patient either agrees not to commit suicide during a specific period of time or makes a commitment to contact the physician if suicidal feelings occur.

The constant company of someone supportive also reduces the risk of suicide. Helping suicidal patients recognize that there are constructive ways of dealing with their problems is important to mitigate the hopelessness they feel. The use of drugs should be avoided as much as possible.

It is crucial to be optimistic. Patients should be told that in many cases depression and suicidal ideation clear up when alcohol is stopped and withdrawal symptoms have ended. It may be noted that even depression which is not alcohol induced is easier to treat when a patient is sober.

The positive effect of the physician's sympathy and understanding should not be underestimated.

Assessment of violent tendencies

Questions about violence should be routine, due to the high correlation between violent behaviour and alcohol.

In some cases violent behaviour diminishes when patients become sober, while in others it remains. However, in all cases it is easiest to deal with violent behaviour when drinking is controlled.

As with alcohol and suicide, the physician may be reluctant to broach the subject of violence. Again, the best method is to ask questions directly with a matter-of-fact but sympathetic manner. Questions may include, "Have you ever hit anybody? Do you throw things? Push your spouse?" Specific questions are best.

Programs designed for those who exhibit violent behaviour are available (see page 98 in the Appendix). In addition, it is important to ensure that the families of violent patients get the care and support they need (see Chapter 8).

Candidates for treatment of alcohol-related problems by the family physician

- Non-dependent patients with mild alcohol-related problems (such as "early problem drinkers", page 11).
- Patients resistant to formal treatment programs and whose dependency is not severe.
- Patients in isolated communities where the primary resource is the physician.
- Patients at a critical point where they are most amenable to treatment but for whom there are no available openings in treatment programs.

Counselling

Brief counselling is appropriate for early problem drinkers. It may include a description of the specific problem, general information about alcohol and its effects, and a few words of advice.

More in-depth counselling includes giving emotional support and direction. This is generally important for all patients with an alcohol dependency as well as their families.

Use of benzodiazepines

In general, apart from situations of withdrawal, benzodiazepines should not be prescribed for alcohol-dependent patients despite symptoms of tenseness or anxiety.

There are several reasons for this avoidance:

- The use of benzodiazepines does not result in less drinking; rather, it significantly increases the risk of creating new dependencies. In addition, some symptoms may clear by themselves after a period of abstinence.
- The attitude that solutions come from bottles, whether of pills or alcohol, is reinforced, leaving underlying issues unresolved.
- The synergistic effect of benzodiazepines and alcohol can be dangerous.

Controlled drinking

A controlled drinking program is not suitable for those who are alcohol dependent. It may be appropriate for some early problem drinkers (see page 11), late onset problem drinkers, and youth. However, if there is a family history of alcohol dependency or depression the controlled drinking option is not advised. It is also not advised if the patient cannot manage an initial two to four week period of abstinence. Other contraindications include medical conditions such as liver disease, ulcers, and psychopathology.

If controlled drinking seems appropriate, the physician and patient should plan a program together (see box on page 28). At the same time as alcohol consumption is reduced, underlying problems must be addressed. In addition, the physician should help the patient work out how to overcome specific blocks to alcohol reduction, such as pressure from friends.

A list of general rules for drinking may be helpful to patients. For example: don't gulp drinks, drink only when eating, don't consume carbonated drinks as these decrease absorption time.

Alcohol-dependent patients should attempt a controlled drinking program only when it is necessary to demonstrate their dependency to them. Trying to abstain for an initial 30 days and then to restrict alcohol consumption to a maximum of two drinks a day for the next 30 days will show them concretely whether or not they have control of their drinking.

Example of a controlled drinking program

- Reduce alcohol consumption to a maximum of 10 drinks a week.
- Leave two days alcohol free to give the liver a rest.
- Allow no more than two drinks on any given day to reduce negative effects of alcohol such as aggression or depression, while retaining positive effects such as relaxation.
- Keep a written record of the number of drinks consumed each day.
- As time goes on, depending on the patient's goals and progress, the number of allowed drinks in any given week may be reduced further.

Disulfiram

For those who want to stop drinking on their own but are having trouble, the inclusion of disulfiram (Antabuse) as part of an overall treatment program may be appropriate. Disulfiram is a deterrent to drinking, especially for impulse drinkers, due to the negative reactions such as headache, flushing, rapid heart beat, weakness, fainting spells, shortness of breath, and nausea that occur when alcohol is consumed.

Disulfiram is not addictive but it is dangerous. It should not be prescribed unless patients fully understand the possible reactions and side-effects; some physicians require their patients to sign a contract to this effect. It must never be given to unsuspecting patients, as fatalities from myocardial infarction and stroke can result. Patients should carry a card containing the information that they are taking disulfiram.

Disulfiram is especially appropriate for those in the over 40 age group who are highly motivated, intelligent, willing to return for monthly evaluations, free of significant depression, and who have a supportive social network.

Disulfiram allows patients to stay sober one day at a time until they are ready to join AA or go into a treatment program.

Calcium carbimide (Temposil) is an alternative to disulfiram.

Self-development

Improving and maintaining physical and emotional health is important in overcoming alcohol dependency. Some of the factors involved in aiding self-development follow.

Nutrition

Proper nutrition is crucial for alcohol-dependent patients who often have eaten poorly for a long period of time. They should follow a varied diet containing adequate amounts of protein (of either plant or animal origin), whole grains, fresh fruit and vegetables, and water. At the same time they must restrict their consumption of caffeine, salt, tobacco, refined carbohydrates, and sugar.

Another aspect of good nutrition is management of food sensitivities. Some patients may be sensitive to the substance from which the alcohol of their choice is made. These patients must avoid all foods containing this substance as well as the alcohol.

Use of disulfiram and calcium carbimide

Contraindications: Women who are pregnant or trying to conceive should not be given disulfiram because of its possible teratogenic effects. Other contraindications include severe hypertensive cardiovascular disease; anticoagulant therapy; arteriosclerotic heart disease; psychiatric disorders (such as schizophrenia, organic depression, and neuropathy); past allergic reaction; severe liver disease; diabetes; epilepsy; hypothyroidism; cerebral damage; and continuance of drinking.

Most of the same contraindications apply to calcium carbimide as well, but to a lesser degree.

Onset of action:

disulfiram: 12 hours to become effective.

calcium carbimide: 1 hour.

Length of action:

disulfiram: 5 to 14 days.

calcium carbimide: up to 24 hours.

Dosage:

disulfiram: 500 mg for one day followed by 250 mg each day after, taken first thing in the morning before breakfast to aid absorption. Those who are sensitive to its sedative action may take it at night instead.

calcium carbimide: 50 mg twice a day.

Side-effects:

Side-effects of disulfiram may include fatigue, skin rash, polyneuropathy, depression, headaches, garlic-like taste, and impotence. There are fewer side-effects associated with calcium carbimide. However both disulfiram and calcium carbimide may cause drug-induced hepatitis.

Nutritional supplements are often indicated as part of a nutritional program.

Exercise

Patients who follow exercise programs function better physically, mentally, and emotionally. Patients should exercise regularly, at least three times a week, and the kind of exercise chosen should fit their lifestyle and particular needs. For most patients, exercises that emphasize cardiovascular fitness are best. Care must be taken to work into an exercise program gradually.

Stress-control

Reduction and control of stress are crucial, as excess stress can be a precipitating factor for relapse. There are many methods of stress-control which patients should be encouraged to explore. Choices include relaxation techniques (such as deep breathing, yoga, meditation, and massage), effective communication, constructive problem-solving, exercise, imagery, humour, and recreational activities.

Exploring personal interests

Some alcohol-dependent patients have few interests other than alcohol; therefore, a major void is created in their lives when they stop drinking. It is important that patients develop other interests and talents to diminish the temptation to resume drinking.

Developing a positive self-image

Many alcohol-dependent patients have low self-esteem and a poor self-image which may interfere with attempts to make positive improvements in their life. Counselling and courses in assertiveness training are sometimes helpful. In some cases, certain aspects of a patient's social situation such as poverty and discrimination can reduce self-esteem and damage self-image and must be addressed.

Interpersonal relationships

The ability to relate well to others and form close relationships is necessary to achieve a good quality of life.

If there are problems in this area, counselling may be helpful.

Family involvement in treatment

The co-operation of the family is often crucial to a patient's ability to abstain from alcohol. For this reason, whenever possible, supportive families should be included in the treatment process from the initial diagnosis onward.

Although the families of alcohol-dependent patients do not cause the dependency problems, sometimes they may inadvertently reinforce a patient's use of alcohol. For example, they may deny there is a problem, make excuses to cover up for a patient's alcohol-induced behaviour, or drink with the patient.

In the case of spouses this behaviour is often due to the roles they have adapted to make the family function in spite of alcohol dependency; their responses to a difficult situation may have been the best they could develop under the circumstances without outside support.

For this reason, support from the physician and others (see Chapter 8) is extremely important in the development of more constructive family responses to alcohol dependency. Understanding the nature of alcohol dependency and the alcohol-dependent patient, exchanging inappropriate reactions for more appropriate ones, and learning to value and respect their own needs will help family members break out of long-term destructive patterns of behaviour.

Improvement of social situation

Improvement of the patient's social situation is an extremely important aspect of treatment. Many of those suffering from alcohol-related problems have major difficulties in areas such as housing, employment, education, and finances. If these are not remedied, the chances of relapse increase.

The physician can give practical direction and encouragement, while ensuring that patients are linked up with social support services.

Treatment of medical complications

Patients in the later stages of alcohol dependency in particular often suffer from a variety of medical complications. Some of these can be managed by the family physician on an out-patient basis while others require hospitalization. (See Chapter 6.)

Referral

In addition to the treatment components listed above which can be provided by the family physician, community resources must be considered essential partners in the effective treatment of many alcohol-dependent patients. For example, some patients need the intensity of an in-patient treatment program and others require support from peers as provided by groups such as Alcoholics Anonymous.

Many services including assessment and treatment planning are provided by the regional offices and funded agencies of provincial addiction organizations such as the Saskatchewan Alcohol and Drug Abuse Commission, the Alberta Alcohol and Drug Abuse Commission, and the Addiction Research Foundation of Ontario.

The physician should be aware of all of these resources and refer patients when necessary. A list of treatment programs, peer groups, and other resources can be found on pages 90-100 in the Appendix.

In addition to referring to resources directly related to alcohol and drug dependencies, the physician will find it necessary to become familiar with a broad spectrum of community resources. In general, patients have many needs in a variety of areas such as employment, legal, financial, housing, childcare, recreation, and education. As well, family members often have multiple problems and their needs should not be ignored (see Chapter 8).

To refer appropriately to such resources it is important to do the following:

Points for appropriate referral

- Consider the specific needs of each patient and how these match each resource. For example, variables such as distance, length of program, program content, level of medical support, wheelchair accessibility, and availability of advocacy services may make a resource suitable or unsuitable for a particular patient.
- Check details in advance. This is necessary, as conditions and programs change periodically. In addition, arrangements for special requirements such as diet restrictions can sometimes be made on an individual basis if prior notice is given.
- Stay in touch with patients after referring them. This ensures personal continuity and, by indicating ongoing concern, provides a great deal of emotional support.
- Act as liaison between patient and resource. Some patients may be intimidated by bureaucracies or professionals and unassertive about looking after their interests. They may also encounter difficulties due to language barriers, socio-economic status, race, ethnic origin, sex, and general demeanour. In these cases, a physician can provide considerable practical aid and support by acting as liaison between patient and resource.

Description of alcohol- and drug-related resources

Detox centres

The primary purpose of a detox centre is to provide a safe environment for withdrawal from alcohol and other drugs, as well as a preliminary assessment of the patient and appropriate referral.

In-patient rehabilitation programs

In-patient rehabilitation programs usually consist of drug and alcohol education on the nature of addictions through films and lectures; individual and group counselling; a component of family involvement; and attendance at Alcoholics Anonymous, Narcotics Anonymous, or other self-help meetings. Topics covered during the course of the program may include sexuality, self-esteem, suicide, spirituality, nutrition, exercise, stress, relaxation, and relapse prevention.

Out-patient services

Generally out-patient services provide education; assessment; individual, group, and couples counselling; family therapy; referral; and community education services.

Hospitals

Services offered by hospitals vary from community to community and may include detoxification, social services, and psychiatric care.

Half-way houses

Generally a half-way house provides a long term support environment (for example, three months) with the goal of helping patients learn the skills necessary for independent living.

Self-help groups

The purpose of most self-help groups is to provide support and encouragement to members who find themselves in difficult situations or facing specific problems. Members share experiences and feelings, as well as information. Self-help, rather than reliance on professionals, is a major tenet.

Criteria for referrals

Following are criteria for making appropriate referrals to resources specifically designed for the treatment of alcohol and drug dependencies:

Detox centre

- Patients who are intoxicated.
- Patients experiencing withdrawal symptoms not severe enough to require hospitalization.

Out-patient treatment program

- Patients who have a stable home situation or who wish to continue working for the duration of the program.
- Patients who are fairly independent and able to maintain sobriety.
- Patients who would have difficulty adjusting to an in-patient program. This would apply to many elderly people.

In-patient treatment program

- Patients who have had limited success with out-patient programs.
- Patients with a more severe alcohol dependency who require an immediate and intensive treatment experience.

Half-way house

- Patients who have little support in terms of money, housing, family, or friends.
- Patients who are currently unable to function adequately on their own but have the potential to do so.

Psychiatric unit or hospital

- Patients with psychiatric problems in addition to their alcohol problems.

General hospital

- Patients suffering from serious medical complications such as severe withdrawal symptoms and liver disease.

Nursing home

- Patients needing long-term care for physical and psychiatric complications following treatment.

Treatment steps

1. *Present a clear and simple statement of the diagnosis.* Discuss features of the drinking questionnaire, lab results, and physical, emotional, behavioural, and social indicators.

2. *Set up a firm treatment schedule and see the patient at regular intervals.* This is necessary to assist patients in solving their immediate problems.

3. *Encourage patients to discuss potential precipitants of drinking.* An understanding of the factors which may precipitate a bout of drinking and a plan to counter them are important in the maintenance of sobriety.

4. *Encourage the spouse to enter the office program.* Involvement of the family is often an important component of a treatment program.

5. *Limit drug therapy.* One of the key points to remember is that the prescription pad is of little value in long-term care.

6. *Utilize available community resources and agencies.* The involvement of the community increases the likelihood of treatment success.

Prevention of relapse

The relapse rate for alcohol dependency is high, making preventive action a priority. The possibility of relapse and strategies for countering it should be discussed with the patient. Patients knowledgeable about relapse and physicians who practise rigorous follow-up will help to minimize the chances of relapse.

Follow-up

The early periods of abstinence, particularly the first six months to a year, are the riskiest time for relapse. For this reason it is best to implement a rigorous 26 visit follow-up routine. Initially, patients should be seen at least every two weeks for three months, then once a month for a year, then every three months up to two years. After this the door should remain open for patients to return when they feel it is necessary.

AA is an excellent follow-up program for patients to join. Alumni associations from treatment centres, which meet regularly once every 6 or 12 months, are also helpful. In addition, follow-up can be handled by regional offices and funded agencies of provincial addiction organizations such as SADAC.

The physician should be aggressive in the follow-up of alcohol-dependent patients by updating addresses and phone numbers regularly, calling patients if they don't show up when expected, and repeatedly emphasizing the importance of follow-up.

Common factors involved in relapse

Recognizing the factors most commonly associated with relapse and taking positive steps to deal with it are extremely important.

Difficulties in the initial recovery period

Any kind of change can be frightening, and alcohol-dependent patients often face many major changes in the initial recovery period. Some will be strongly tempted to return to the familiar life where alcohol is the main focus. For this reason patients must be prepared for the changes that might occur, for example with relationships, and make plans in advance to deal with these.

Another precipitant of drinking in the initial recovery period is the difference some patients find between their expectations and reality. Discovering that problems have not automatically disappeared with the cessation of drinking can be extremely discouraging. The physician should help patients form realistic expectations and make sure they recognize that sobriety will not resolve all problems, many of which exist independently of drinking.

A third difficulty that sometimes persists for months after the initial withdrawal period is the occurrence of withdrawal-like symptoms such as dry heaves, shakes, sleep disturbances, agitation, and poor control of temper. These symptoms may be associated with a syndrome known as a dry drunk, where patients exhibit emotional symptoms of intoxication although no alcohol has been consumed.

During this period of time a great deal of support is required.

Diet

One important aspect of prevention is diet. Many alcohol-dependent patients substitute food with high sugar content such as chocolate bars and coffee with cream and sugar for alcohol. This can disturb the sugar balance and precipitate a reactive hypoglycemia, causing symptoms such as agitation, anxiety, and fainting. This may often lead to relapse when patients return to alcohol for relief. However, if patients follow a nutritious high-protein diet which restricts refined carbohydrates and foods with high sugar content, the craving and symptoms will eventually disappear (see page 29).

Stress

Excess stress at home, at work, or elsewhere can lead to relapse. Whether due to a combination of minor irritations, a major life change (a new job, new relationship, or relocation), or a severe crisis (the death of someone close, marital breakup, or physical trauma) patients must learn to recognize symptoms of excess stress and learn positive methods of dealing with such stress.

Boredom

Patients sometimes relapse because their lives are empty and without meaning. Finding satisfaction in at least some areas of life, for example work, leisure-time activities, or friendships, is extremely important. Patients should be encouraged to continually develop interests and talents.

Over-confidence

One danger for relapse is over-confidence; when things are finally going well patients sometimes feel they can handle drinking again. Patients should be warned against this over-confidence which is best described by members of AA as "floating on a pink cloud."

6 Management of Medical Complications

There are many serious medical complications associated with excess alcohol consumption, in some cases due to alcohol's role as a toxic drug and in others to the alcohol-dependent patient's inadequate diet. Brief discussions of some of the more common medical complications follow.

Alcohol and malnutrition

Alcohol-dependent patients frequently suffer from malnutrition for several reasons. Firstly, the toxic effects of alcohol directly interfere with nutrient metabolism and damage the digestive organs. Secondly, alcohol's empty calories displace the vitamin-, mineral-, and amino acid-containing calories of food. Thirdly, alcohol in large doses suppresses appetite, with the result that food intake may be insufficient.

Nutrients that have been found deficient in alcohol-dependent patients include essential amino acids, B-complex vitamins (for example thiamine, riboflavin, niacin, pyridoxine, folic acid, and B12), ascorbic acid, the fat-soluble vitamins A, D, and E, and minerals such as calcium, iron, magnesium, and zinc. Fat malabsorption may also be a problem for those with an alcohol dependency.

Often the only evidence of nutrient deficiencies is vague symptoms such as fatigue and irritability. General malnourishment can also result in increased frequency of infections. Less common but often extremely serious are the specific conditions which arise as the result of nutrient deficiencies. For example:

Results of nutrient deficiencies

- Thiamine deficiency can lead to peripheral neuropathy and Wernicke-Korsakoff syndrome as well as cardiomyopathy.
- Niacin deficiency causes pellagra, indicated by dermatitis, diarrhea, and dementia.
- Ascorbic acid deficiency causes scurvy with proneness to bruising and increased danger of post traumatic intracranial hemorrhage and subdural hematomas.
- Folic acid deficiency results in macrocytic anemia.

A special mention should be made of magnesium deficiency which is not diagnosed as often as it should be in the alcohol-dependent patient. Signs and symptoms suggesting deficiency fall into three major clinical categories:

Neuromuscular: twitching and tremor of any or all muscles including the tongue, with waxing and waning intensity and often with abrupt onset.

Signs and symptoms of magnesium deficiency

Mental apathy: poor memory, mild to severe delirium, confusion, disorientation, hallucinations, paranoia, and coma.

Cardiac: premature beats, ventricular tachycardia, and ventricular fibrillation.

Because nutritional deficiencies and difficulties with digestion and absorption are common among alcohol-dependent patients, a high-quality diet and nutritional supplementation are extremely important. Although the individual needs of each patient must be taken into account, at the very least a good multivitamin and mineral preparation plus thiamine 100 mg daily should be taken.

Alcohol and gastroenterology

Alcoholic liver diseases

Alcoholic liver diseases include fatty liver (fat deposits in the liver), alcoholic hepatitis (necrosis and inflammation), and alcoholic cirrhosis (scarring of the liver). Alcoholic cirrhosis is sometimes the result of repeated attacks of alcoholic hepatitis.

The three liver diseases are often asymptomatic, and in some patients it is difficult to distinguish between them. The only accurate diagnostic method in all three cases is a liver biopsy. A few of the signs and symptoms that may occur follow:

Fatty liver: hepatomegaly, tenderness in the liver area, nausea. Fatty liver is, however, frequently asymptomatic; often the only signs are biochemical changes revealed by laboratory tests.

Signs and symptoms of liver disease

Alcoholic hepatitis: fever, jaundice, anorexia. Laboratory indicators include elevated transaminases, especially Gamma GT, and a ratio of AST to ALT of about 2:1. There are much higher elevations of all transaminases in viral hepatitis than in alcoholic hepatitis.

Alcoholic cirrhosis: a hard and nodular liver which is enlarged in the early stages and shrunken in the later stages, anorexia, and late-stage signs such as spider angiomata and palmar erythema.

Fatty liver is a relatively mild disease; however, alcoholic hepatitis and alcoholic cirrhosis are both potentially fatal. Alcoholic cirrhosis is a major cause of death in North America.

Alcoholic cirrhosis is sometimes associated with dangerous complications such as ascites, portal hypertension, esophageal varices, and hepatic encephalopathy. Poor prognostic factors for alcoholic cirrhosis include low albumin and prolonged prothrombin time combined with hematemesis, jaundice, and ascites.

In all three cases the treatment is a high-quality diet, nutritional supplementation, and abstinence. Even small amounts of alcohol may be dangerous in the case of alcoholic cirrhosis. Among the new research treatments which appear to decrease mortality in those with alcoholic cirrhosis if they are abstaining from alcohol are propylthiouracil, prostaglandin, and colchicine therapies.

Ascites should be treated with a 2 g sodium diet, cautious use of diuretics such as spironolactone, fluid restrictions of less than 2 litres a day, and bed rest.

Treatment of hepatic encephalopathy may include a low protein diet (30 to 40 g daily), a laxative such as lactulose, and hemoperfusion through charcoal for refractory cases.

Alcoholic gastritis, esophagitis, and peptic ulcers

Alcohol's toxic effects cause inflammation of the stomach and esophagus, resulting in symptoms of abdominal pain, heartburn, nausea and vomiting, melena, and hematemesis. Longitudinal tearing of the wall of the esophagus with co-existent blood loss sometimes results from prolonged vomiting and is called the Mallory Weiss syndrome.

Treatment of these conditions should stress the avoidance of alcohol, tobacco, coffee, and aspirin-type drugs, and may also include the use of antacids, H2 antagonists such as ranitidine and cimetidine, and cytoprotective agents such as sucralfate.

Alcoholic pancreatitis

Acute alcoholic pancreatitis may initially be edematous in nature; when it becomes hemorrhagic it can be fatal. Chronic alcoholic pancreatitis leads to fibrosis, calcification, steatorrhea, diabetes, and cysts.

Generally the major symptom of acute pancreatitis is pain in the upper abdomen. Diagnosis may be confirmed by serum amylase and lipase tests, as well as a new test involving radioimmunoassay of trypsinogen.

Immediate treatment is essential and may include bed rest, no oral feedings, intravenous replacement of electrolytes and fluids, nasogastric suction, and control of pain. Long-term treatment includes abstinence and possibly other measures such as a low-fat diet, enzyme replacement, and surgery in cases of pancreatic abscess or pseudocyst.

Alcohol and the nervous system

Wernicke-Korsakoff syndrome

The three major symptoms of Wernicke's encephalopathy are confusion, ophthalmoplegia, and ataxia. These may not all appear at once. Wernicke's encephalopathy is a medical emergency which can result in death; it must be treated immediately. Because thiamine is a co-factor in glucose metabolism, it must be added to any I.V. solution of glucose to avoid precipitation or aggravation of acute Wernicke's encephalopathy.

Among the effects of Korsakoff psychosis are dementia and the close to complete destruction of short-term memory.

Wernicke's encephalopathy has been shown clinically to respond rapidly to large doses of thiamine hydrochloride 100 to 1000 mg intramuscularly once a day for five days or until ocular abnormalities are reversed. If the patient is going into a coma, intravenous thiamine may be required (50-300 mg I.V. for up to four days).

If Wernicke's encephalopathy does not respond to thiamine therapy, the physician should look for hypomagnesemia and replace magnesium where indicated, as magnesium is a co-factor for thiamine transketolase.

The Korsakoff psychosis may not respond to treatment and often results in institutionalization.

Patients should take supplements of thiamine, other B-complex vitamins, and vitamin C for one to two years where there is evidence of encephalopathy or neuropathy.

Peripheral neuropathy

Symptoms of peripheral neuropathy are diverse and commonly include weakness, numbness, pain, and paresthesias. When patients are asymptomatic, the diagnosis is established on the basis of wasting of leg muscles, calf tenderness, motor and sensory impairment affecting the distal segments of the limbs, and reduced knee and ankle jerks found on examination. The symptoms and signs are most pronounced peripherally, with the lower extremities ordinarily affected earlier and more severely than the upper ones. Muscles of the trunk and face generally are spared.

Treatment includes abstinence and supplementation of the diet with B-complex vitamins, especially thiamine, combined with physiotherapy to prevent deterioration and contractures.

Brain damage

Brain damage in alcohol-dependent patients is much more common than is generally realized. It includes cerebral atrophy which can result in dementia with a global loss of cognitive functioning, and cerebellar degeneration. These may improve with abstinence, although in severe cases complete recovery is unlikely.

Alcohol and blood

Anemia

Anemia is common in alcohol-dependent patients due to a number of factors such as internal bleeding (for example from gastritis or esophageal varices), poor nutrition, malabsorption of folic acid, liver disease, portal hypertension, and suppression of bone marrow production.

In addition to abstinence, treatment may include supplementation of folic acid or iron, and control of bleeding.

Thrombocytopenia

It is common for platelet counts to be low in alcohol-dependent patients. With cessation of drinking there is sometimes a rebound where the count rises to higher than normal, and then quickly levels out.

Alcohol and the heart

Hypertension

There is evidence to suggest heavy alcohol consumption is linked to hypertension. Moderation or abstinence is important in the control of alcohol-related hypertension.

Strokes

Excess alcohol consumption is associated with increased incidence of strokes.

Alcoholic cardiomyopathy

Arrhythmias are a common symptom of alcoholic cardiomyopathy. Atrial fibrillation is often associated with moderate dyspnea and obesity in the 45-65 age group. Recognition of alcoholic cardiomyopathy in the early stages is rewarding because abstinence from alcohol can halt the progression of fibrosis. However, if the diagnosis is missed and the patient does not abstain from alcohol, hypokinetic heart failure with cardiac enlargement can occur. This is irreversible.

Beriberi heart

The cardiomyopathy of thiamine deficiency is encountered primarily in those who are poor and malnourished. Wet or exudative beriberi heart disease features right-sided myocardial failure with rapid circulation in patients who have no previous evidence of arteriosclerotic, hypertensive, luetic, or rheumatic heart disease.

The response to intravenous thiamine is dramatic, with early disappearance of signs of congestive failure, and later more gradual disappearance of the electrocardiogram abnormalities along with a reduction in heart size. Eventually prolonged uncorrected thiamine deficiency can result in a permanently damaged myocardium.

Thiamine should be taken for a minimum of six months to a year for the tachycardia that accompanies this.

Holiday heart syndrome

This syndrome usually occurs after weekends or holidays and refers to atrial fibrillation, atrial flutter, or premature ventricular beats. This cardiac irritability follows alcohol consumption and usually disappears without residual effect following cessation of drinking.

Alcohol and the endocrine system

Sexual dysfunction

Alcohol has a disinhibiting effect psychologically but physically decreases functioning by lowering testosterone levels in males both acutely and chronically. Hypogonadism caused by excess alcohol consumption can result in impotence and loss of libido. Hypogonadism without testicular atrophy generally clears after a few months of sobriety.

Alcoholic hypoglycemia

Disturbed glucose tolerance curves are commonly noted in different stages of alcohol dependency. Recurrent hypoglycemia is commonly found 12-16 hours after the acute phase. The blood glucose level falls after absorption of alcohol due to:

Reasons for blood glucose drop

- Increased utilization of glycogen stores during the metabolism of alcohol.
- A preceding period of inadequate food intake.
- A decreased glycogen synthesis during utilization of these stores.

Hypoglycemia is usually more common in the first three to six weeks of abstinence as patients are getting over disturbances in liver and pancreas function. Once liver and pancreas function are stabilized and patients' stress levels go down, they are advised to restrict their dietary consumption of refined carbohydrates and sugar.

Alcohol and reproduction

Excess alcohol consumption is sometimes a factor in infertility in women. It can also cause menstrual irregularities such as menorrhagia, and increased risk of spontaneous abortion. In men, it may result in lower sperm production and cause sperm abnormalities.

The most common result of alcohol consumption during pregnancy is low birth weight, which is the major cause of infant mortality.

Less frequently, alcohol consumption may seriously affect the development of the fetus, resulting in fetal alcohol syndrome (FAS)[1] or the less severe fetal alcohol effects (FAE). The most common

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[1]The source for much of the information in this section is Rosett, H.L., Weiner, L. *Alcohol and the Fetus: A Clinical Perspective.* New York: Oxford University Press, 1984.

symptom of fetal alcohol syndrome is retarded growth. Other major symptoms include facial abnormalities and central nervous system abnormalities such as mental retardation and hyperactivity.

Although the most serious damage occurs in the first trimester, cessation of drinking at any point in the pregnancy will prevent at least some of the negative effects of the alcohol.

As the amount of alcohol required to harm the fetus has not been established and is likely to vary from individual to individual, the wisest course during pregnancy is abstinence. For heavy drinking and alcohol-dependent pregnant patients, complete abstinence is essential.

A high-quality diet which includes nutritional supplements is also crucial to meet the nutrient needs of the developing fetus and the increased nutrient requirements of the pregnant patient. This is especially important as many alcohol-dependent patients are malnourished even before they conceive.

Intervention approaches range from brief to intensive counselling. During counselling it is extremely important to stress the positive benefits of abstaining rather than dwelling on the damage that may already have been done. Disulfiram should not be used because of its possible teratogenic effects. Patients who are unable to stop drinking on their own may need to be hospitalized; however most women will be highly motivated to stop drinking because of concern for the fetus.

Gradually reducing alcohol consumption over several days may be the best method of handling withdrawal in order to minimize effects on the fetus. The use of drugs such as benzodiazepines during and after withdrawal should be avoided due to the possible teratogenic risks.

The combination of alcohol and anti-convulsant medication also increases risk to the fetus and should be avoided if possible.

Obstetrical complications for those who are alcohol dependent include increased risk of first and second trimester vaginal bleeding, infections during delivery, premature placental separation, and fetal distress during labour.

Anesthetic management is complicated with even more potential dangers for the alcohol-dependent woman and her fetus than for others. General anesthetic should be avoided if at all possible.

If a patient is considering terminating the pregnancy because of concern about the possibility of FAS or FAE, the physician should give an objective overview of the situation.

A rough guideline of risk is provided by studies indicating that the incidence of FAS may be up to 50 per cent among chronic alcohol-dependent women.[2] However, it is very uncommon in children of moderate drinkers. The incidence is also low in the

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[2]Ives, E.J. The fetal alcohol syndrome. *MEDICINE North America 16*, Dec., 1987, pp. 3074-3080.

children of heavy drinkers who stop drinking in the early stages of pregnancy.

Factors such as diet, state of health, drinking history, use of other drugs including nicotine, ability to remain abstinent, and whether or not previous children have FAS or FAE should be taken into account when assessing risk. Patients should know that it is impossible to predict the outcome with any accuracy and that maintaining sobriety will help minimize the possibility of negative effects.

Women who are concerned about having had a few drinks before realizing they are pregnant should be reassured that damage to the fetus is unlikely.

The decision to continue or terminate the pregnancy should be made by the patient and physician in the context of each patient's individual situation, taking into account a number of variables ranging from how the patient feels about the pregnancy to the amount of social support available to her.

Alcohol and the musculoskeletal system

Excessive drinking may be a factor in osteoporosis and osteonecrosis as well as acute and chronic alcoholic myopathy.

The physician should consider the diagnosis of acute alcoholic myopathy when patients who drink heavily and have no history of trauma present with a painful and tender swollen group of muscles, usually in the lower extremity, which imitates a deep thrombophlebitis. Muscle enzymes (CPK) are markedly elevated and myoglobin may be present in the urine. Residual weakness may last months following resolution of symptoms after a few days of sobriety. A chronic form of alcoholic myopathy may accompany alcoholic polyneuropathy with progressive muscle weakness, wasting, and no pain. The acute type may be a manifestation of hypophosphatemia whereas the chronic type is usually associated with co-existent nutritional deficiencies.

Alcohol and infections

Alcohol affects the immune system adversely, with the result that alcohol-dependent patients have a high incidence of infectious gram negative diseases such as pneumonia (for example, Klebsiella, Proteus, and Pseudomonas aeruginosa), and tuberculosis.

Alcohol and trauma

A major cause of death among alcohol-dependent patients is trauma due to motor vehicle accidents, fires, falls, hypothermia, and assaults. The alcohol-dependent population has a higher rate of death as a result of such injuries than the general population.

Alcohol and cancer

Epidemiological studies implicate alcohol as a factor in cancers of the head and neck, esophagus, and liver among heavy drinkers who smoke. In addition, recent evidence suggests that even moderate drinking increases the risk of breast cancer.

Alcohol and depression

Depression is a serious complication. The main danger is the risk of suicide which is as high for alcohol dependency as it is for schizophrenia and major affective disorders.

While a significant proportion of persons use alcohol in response to some underlying psychiatric illness such as an affective depressive disorder, alcohol by itself can be a major factor in the development of feelings of depression with suicidal ideations. This can be described as a depressive syndrome of chronic intoxication. A depressive syndrome may continue over the first three to six months or more of a patient's initial sobriety, although often it clears much sooner. It then becomes clinical judgement to determine whether or not the depression was the consequence of excessive alcohol intake or related to underlying psychiatric illness previously covered up by the dependency. Effective forms of treatment such as lithium for an underlying primary bipolar affective disorder will in many instances ameliorate the drinking problem.

Alcohol-drug interactions

The physician must use great caution when prescribing medication to patients with alcohol-related problems. In some cases, alcohol may increase the action of medication resulting in dangerous side-effects (see page 87 in the Appendix). In other cases, alcohol may render medication ineffective.

Physicians should be aware of the potential effects of alcohol on any particular medication and prescribe accordingly. They must also explain to their patients the potential dangers of drinking while on medication.

Treatment of methanol poisoning

Methanol poisoning results from the formation of formaldehyde and formic acid as well as from severe metabolic acidosis as methanol is degraded in the body. It is an urgent situation which requires immediate attention; blindness and death can result if treatment is delayed. Early referral to a toxicology centre after initiation of appropriate emergency measures is crucial.

Signs and symptoms

- Cerebral aberrations such as headache, confusion, seizures, and diminished consciousness.
- Visual disturbances such as soreness behind eyes, blurry vision, and photophobia.
- Nausea, vomiting, and epigastric pain.
- Respiratory distress.
- Extreme acidosis with low pH, bicarbonate, and carbon dioxide levels.
- Elevated levels of serum amylase.

Treatment

1. Empty stomach via gastric lavage.
2. Give ethanol orally or intravenously.
3. Monitor blood gases; intravenous bicarbonate may be necessary.
4. Correct fluid and electrolyte disturbances.
5. Initiate hemodialysis if the following indicators are present:
   - blood methanol levels greater than 15 millimoles/litre.
   - severe acidosis with pH less than 7.1.
   - renal failure.
   - visual disturbances.

7 Special Needs of Specific Populations

Members of specific groups often have characteristics and needs which differ from those of the rest of the population; it is essential for the physician to be aware of and sensitive to these needs. At the same time, the physician must keep in mind the existence of individual variations that transcend group distinctions, due to factors such as background, personality, life experiences, and physical makeup. For example, it should not be assumed that Native people form a homogeneous group; in Saskatchewan there are six major Native cultural groups (Assiniboine, Cree, Dakota-Sioux, Salteaux, Chipewyan, and Metis) as well as differences between urban and rural dwellers. And although women in general have much in common, each individual woman is unique as a result of variables which include ethnicity, socio-economic status, and sexual orientation. Recognition must be given to variations as well as to similarities for all members of specific populations.

Most of the groups discussed in this chapter, with individual exceptions, have lower social, economic, and political status than others, as well as less control over their lives. An important treatment goal for these patients is empowerment, which can be accomplished by making changes in their personal lives and by working with peers to improve their social and political situations.

Some of the issues involved in the treatment of specific populations follow.

Women

It is important to note that there are major differences between men and women regarding alcohol use and associated problems. Women have special requirements which must be taken into account when planning treatment.

Identification of alcohol-related problems

Although there are fewer women with alcohol dependency than men, the numbers appear to be increasing and are greater than most people recognize. There are several reasons why the physician may miss diagnosing such problems:

Under-diagnosis among women

- Women may be less open about their alcohol consumption because of the associated stigma.
- Families are more likely to hide alcohol-related problems of the female drinker in an attempt to be protective.
- Signs of intoxication may be less overt than those of men.
- The relative isolation of many women means that social indications of alcohol-related problems such as legal and employment difficulties may be absent.

- The stereotype of women as light drinkers may result in alcohol-related problems being overlooked in some cases. In other cases, alcohol-related problems are misdiagnosed as depression or anxiety, and tranquilizers or other drugs prescribed inappropriately.

Medical considerations

The physician should be aware of the special medical concerns related to alcohol dependency among women. For example:

- *Telescoping.* Less alcohol is required to cause physical problems such as cirrhosis of the liver, and medical complications often develop more quickly in women than in men.

Medical concerns of women

- *Gynecological disorders.* It is common for alcohol-dependent women to suffer from gynecological problems such as menstrual irregularities and premenstrual syndrome. (The effects of alcohol dependency on pregnancy are discussed on page 43 in Chapter 6.)
- *Sexual dysfunction.* Problems such as lowered sexual response and lack of orgasm are also common. In these cases sexual counselling should be part of the treatment program.
- *Multiple addictions.* Women are given more prescriptions for psychoactive drugs than men, with the result that they are more frequently dependent on tranquilizers and sedatives. It is important to diagnose and treat not only the alcohol dependency but other dependencies as well.

Social situation

Many women find themselves in dependent positions due to restricted employment opportunities and the social confines of traditional female roles. They are also subject to multiple pressures at home, at work, and socially, while practical and emotional support are frequently absent. For example, many women bear the full responsibility for the care of house and children and other family obligations even when they also work outside the home (generally in jobs that, although demanding, pay low wages). This combination of unequal status and unrealistic expectations often results in low self-esteem and negative feelings such as guilt. These social difficulties which women regularly face can be contributing factors to alcohol-related problems as well as serious impediments to recovery.

Treatment goals for women must include accepting the legitimacy of their own needs and feelings, learning constructive ways of expressing and dealing with these needs and feelings, developing a positive self-image, and, ultimately, building a strong sense of self-worth that is independent of the men, children, and other people in their lives.

Reaching these goals may be impossible without active practical support. For example, lack of childcare may prevent women from entering treatment programs. Job-training, legal counselling, and financial assistance may also be required.

In addition to practical support, emotional support is crucial.

The physician should encourage women in need of support to build informal networks, join self-help groups, and contact any professional or lay organizations which may be able to provide assistance.

Physical and sexual abuse

A high proportion of alcohol-dependent women, with estimates ranging from 40 per cent upwards, have been sexually or physically abused.[1] Low self-esteem, guilt, anger, and other effects of incest, rape, and battering must be addressed to reduce the likelihood of relapse. In some cases the best time to do this may be concurrent with treatment while in other cases it may be best to wait six months to a year after treatment.

If an abusive situation is current, the physician should outline all available options to the woman being abused. In addition, extensive support and aid must be made available to her.

Women-only groups

The issues facing women often differ from those facing men. Women-only groups provide a safe place for women to discuss personal issues such as emotions and sexuality with others who share a similar perspective. In general, women will participate more freely in a group without men.

Elderly[2]

To a large extent, individuals aged 65 and older are a displaced population in this society, removed from the mainstream of daily life. Their special requirements resulting from a wide range of issues including alcohol-related problems are often neglected. An awareness of these requirements is essential to effective treatment.

Types of elderly problem drinkers

There appear to be two major groups of problem drinkers among the elderly. One group is classified as early onset and includes

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[1]Underhill, B.L. Issues Relevant to Aftercare Programs for Women. *Alcohol Health and Research World,* Fall, 1986, *Vol. 11, No. 1,* pp. 46-47 (referencing Covington 1982; USDHHS 1983).

[2]Much of the material in this section is based on the work of Dr. Sara Saunders, Addiction Research Foundation, 33 Russell St., Toronto, Ontario.

those who have been drinking excessively from a much younger age. The second is classified as late onset and includes those for whom problems caused by drinking are of recent origin.

Treatment needs vary according to the group to which the patient belongs. The early onset drinker generally has greater medical requirements arising from the complications associated with years of excessive alcohol consumption. Contributing factors to dependency in this group are longstanding and must be addressed on that basis. The late onset drinker is more likely to drink because of recent life events, and may not yet be dependent.

Diagnosis

Alcohol-related problems are under-diagnosed in the elderly for the following reasons:

- Symptoms may be attributed to senility, Alzheimer's disease, or the general effects of aging.

Under-diagnosis among the elderly

- Elderly patients and their families may be more resistant than others to recognizing the possibility of alcohol-related problems.
- Because many elderly patients are more isolated than the rest of the population, social indications of alcohol-related problems such as employment, marital, and legal difficulties are often absent.
- Physicians may feel their efforts are better spent on younger patients or that the elderly are too old to change their habits. However prognosis is often good, especially for the late onset drinker.

Medical considerations

Because an individual's body and metabolism change with age, it is not surprising that the elderly problem drinker has special medical concerns:

- The particular dangers of alcohol consumption among the elderly include increased risk of falls, suicide, depression, and confusion. Use of alcohol may mean the difference between being able to function at home and having to go into a nursing home.

Medical concerns of the elderly

- There is often reduced tolerance; a smaller amount of alcohol may be all that is necessary to cause adverse effects.
- It is often difficult to distinguish between alcohol-related problems and other medical problems in the elderly, as symptoms are often similar. In the same

way that the possibility of alcohol-related problems as the cause of symptoms should not be discounted, the possible involvement of other factors should not be overlooked.

- Many elderly patients suffer from multiple medical problems which require treatment and follow-up. It is important that all treatment options be explored to avoid an over-reliance on medication.
- The elderly are heavy users of prescription and over-the-counter drugs; multi-drug use, particularly of psychoactive drugs such as tranquilizers and pain killers, can be a serious problem. The major danger of using more than one drug is that the chances of severe side-effects are significantly increased. Drugs should be prescribed as rarely as possible and their use monitored regularly. When medication for the patient with alcohol-related problems is necessary, alcohol's specific action on other drugs should be taken into consideration and prescriptions ordered accordingly.
- For a number of reasons including poverty, lack of mobility, and absence of companionship, some elderly patients do not eat well. In addition, elderly patients may have reduced levels of activity as a result of physical disabilities or a lack of places to go and things to do. Both poor nutrition and inadequate amounts of exercise can have serious consequences on the physical and mental well-being of elderly patients.

Communication

To increase effective communication with elderly patients it is important to be aware of the possibility of some degree of hearing impairment, memory loss, and confusion.

Attention to communication is particularly important to ensure correct usage of prescribed drugs. Large print instructions together with clear verbal instructions are helpful.

Social situation

Stresses associated with their social situation appear to play a large role in the alcohol-related problems of late onset drinkers. The elderly face many major life changes for which they are often unprepared. These include the deaths of spouse and friends,

retirement, the departure of grown children from home, physical illness and decreased mobility, reduced income, and increasing inability to maintain independence in areas such as housework and personal cleanliness. Associated with these changes are many losses: loss of companionship, loss of a defined social role, loss of status, and loss of self-respect. The result for some elderly individuals may be isolation and depression.

For this reason, a great deal of social support is often required for the elderly problem drinker. For example, help may be needed in areas such as transportation, cooking, housecleaning, bathing, finances, and integration into social activities.

Treatment considerations

Abstinence, at least initially, may not always be an appropriate goal for the late onset drinker. Elderly patients whose main activity is drinking are often fearful of the vacuum which would result from abstinence. In such cases it is best to talk about the negative physical effects of alcohol and to propose a gradual reduction in alcohol consumption. At the same time it is crucial to encourage elderly patients to develop friendships and interests, learn methods of stress-control and problem-solving, increase lifeskills, improve self-image, and connect with community resources.

When considering referral of elderly patients for treatment, the physician should note that some will do better with the reassurance of their familiar home environment in the evenings. For these, an out-patient program is more suitable than an in-patient program.

The appropriateness of existing drug and alcohol programs must also be considered before making a referral. For example, facilities may present physical barriers such as stairs and lack of grab bars, and staff may be unable to handle special dietary or medical requirements. In addition, elderly patients may feel out of place in treatment programs where the majority are of a younger generation with vastly different concerns, language, dress, and pace of activity. Elderly patients may also experience difficulty in discussing personal feelings with others in the course of the treatment program.

Youth

A significant proportion of young people aged 12 to 19 uses alcohol regularly. Although alcohol-related illness is rare among people in this age group, youth do experience other serious alcohol-related consequences such as accidents, suicide, psychological problems, impaired relationships, and disruption of school life.

Diagnosis

Many young people who meet the criteria for early problem drinker are not yet alcohol dependent. Although there is not necessarily a correlation between youthful heavy drinking and the development of adult dependency, identification of young people who are problem drinkers is important both to prevent the possibility of future dependency and to prevent or reduce the possibility of immediate consequences such as traffic fatalities.

One danger to avoid is over-diagnosis which may result when certain characteristics of normal adolescent development are mistaken for symptoms of drug or alcohol use. For example, rebelliousness, stubbornness, and other apparently negative behaviour may not be evidence of drug- and alcohol-related problems but, instead, may be related to anti-authoritarian attitudes which are an important part of adolescence.

Treatment goals

In cases of younger patients who are not yet dependent on alcohol and are resistant to the idea of life-long sobriety, options such as reduction of consumption can be considered. (See page 27 for a description of controlled drinking.)

Type of program

There are many disagreements concerning the best treatment program for youth. Some of the issues in question include length of the treatment program, the degree of restrictiveness involved, role of the family, and whether in-patient or out-patient is preferable. Because needs vary from person to person, the physician should judge each case individually when deciding which program best suits a young patient. In most communities resources are available to assist the physician to assess and appropriately place young patients.

One area where there seems to be common agreement is that the most appropriate programs are those designed specifically for youth, as their issues and concerns differ considerably from the issues and concerns of adults.

Treatment programs that are extremely restrictive in terms of personal freedom and choice should be avoided.

Family involvement

Frequently one or more members of the young person's family has problems related to the use of alcohol or other drugs. Even when this is not the case, relations between family and youth may have deteriorated. Both situations should be addressed to increase treatment effectiveness. Family involvement in the treatment process is important and should be encouraged where appropriate.

Use of more than one substance

The physician should be aware that in cases of young people with alcohol-related problems other drugs such as cannabis are often involved as well.

Social situation

Young people may drink heavily for different reasons than adults. For example, they may drink for reasons of adventure and experimentation. However, youth often face difficulties in their social situations just as do adults. Regardless of whether these difficulties are a cause or a result of alcohol-related problems, any treatment plan to be effective must take account of them. It is important to help young people to work on improving their lives in areas

such as education, employment, friendships, relationships with parents, legal difficulties, and housing.

In cases where peer pressure plays a role in destructive drinking habits, young patients should be encouraged to develop new friendships to replace their old social circle.

Native people

Although alcohol dependency is a problem of major proportions among the Native population, it should not be looked upon as insurmountable. However, if treatment is to be effective the involvement of both Native and non-Native communities is essential. Treatment approaches must be initiated and controlled by Native people rather than imposed on them, while problems such as poverty that may be contributing factors to alcohol dependence must be addressed by the community at large.

At the same time as physicians support a community approach to the prevention of alcohol-related problems among Native people, they must continue to treat individual patients.

Communication

Because the patient's first language may have been other than English and formal education limited, oral comprehension and literacy should not be taken for granted.

Medical problems

Often medical care needs to be more intensive for Native patients than for the general population due to more severe health problems such as tuberculosis. The needs of pregnant women in particular must be met to reduce the high rates of infant mortality and fetal alcohol syndrome among the Native population. Preventive health work such as nutrition education is crucial.

Suicide

The suicide rate for the total Saskatchewan population, 1985-1986, was 17.5 suicides per 100,000 people. The rate for the residents of Saskatchewan Indian reserves aged 15 years and over was nearly four times as high: 63.7 suicides per 100,000 people.[3] For this reason, assessments for suicidal tendencies among Native patients are extremely important.

Culture

The various Native cultures have a different approach to healing and medicine than that of the dominant North American culture. It is therefore important to incorporate Native cultural and spiritual values into treatment. As this is beyond the scope of most physicians, referral to programs with a Native focus such as those sponsored by SNACC (Saskatchewan Native Addictions Council Corporation) and NNADAP (National Native Alcohol and Drug Abuse Program) is generally advised (see pages 91-92 in the Appendix).

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[3] *SADAC Research Report: Suicide in Saskatchewan: The Alcohol and Drug Connection.* Regina: Saskatchewan Alcohol and Drug Abuse Commission, 1988.

Improving self-image

Increased self-esteem and an acceptance of self in all aspects is important in the treatment of every alcohol-dependent patient. It is particularly crucial for Native people who are constantly confronted by active discrimination as well as negative stereotypes (which in some cases may have become internalized) and whose traditional cultural values are being eroded. Working through issues of racism and strengthening cultural identity and spiritual values are often necessary in improving self-image.

Social problems

Many Native patients are in extreme distress due to the complex problems they face daily. They often live in situations of severe poverty and suffer from all its associated stresses such as poor housing and ill health. Appropriate referrals to facilitate educational upgrading, adequate housing, and improvements in other areas of life must be made as required.

Beyond aiding patients on an individual level, efforts to find solutions on a society-wide level should be encouraged.

Patients with physical disabilities

The special needs of patients with physical disabilities in addition to alcohol-related problems have for the most part been overlooked. However the physician must be aware of these needs when treating patients with impaired vision, hearing, or mobility, or other physical disabilities. In some cases the alcohol-related problems will have preceded the disability; in other cases the disability will be a contributing factor to the development of alcohol-related problems.

Diagnosis

A diagnosis of alcohol-related problems among patients with physical disabilities is often missed for several reasons:

Under-diagnosis among patients with physical disabilities

- Both the physician and patient may focus their attention and energy on the most obvious problem, the physical disability, and ignore more subtle alcohol-related problems.
- The discomfort some physicians feel with patients who have a disability may interfere with their identification of alcohol-related problems.
- Physicians may perceive patients with disabilities as less autonomous than others and therefore less able to overcome alcohol-related problems.

Medical considerations

The dangers of alcohol consumption are greater in this population than in general:

- Those with impaired cognitive functioning resulting from severe head injury, dementia, or other causes should not drink at all, due to the unpredictable effect of alcohol on their behaviour and the possibility of increasing damage.

Medical concerns of patients with physical disabilities

- Alcohol consumption may precipitate seizures in some epileptics, not necessarily in response to withdrawal. In addition, alcohol decreases the effectiveness of anti-seizure medication.
- Patients on psychoactive medication such as tranquilizers and analgesics are in danger of suffering from the effects of alcohol-drug interactions as well as from cross-addictions. Although it is not always appropriate to discontinue medication, its use should be reduced as much as possible. For example, non-drug alternatives to the control of pain and stress should be investigated.
- The combination of intoxication and a disability may in some cases significantly increase the risk of accidents.

Treatment considerations

Some of the considerations which the physician should take into account when treating patients with both a physical disability and an alcohol-related problem follow:

- Communication barriers between patients and staff and physical limitations of facilities make many treatment programs inaccessible to people with physical disabilities. Before making a referral the physician should investigate the suitability of programs for their patients, checking points such as the familiarity of staff with sign language, availability of literature in braille, and presence of elevators, ramps, and accessible bathrooms. Special arrangements may need to be made to accommodate those with physical disabilities in treatment programs. Alternative approaches such as home visits should be considered.

Treatment concerns of patients with physical disabilities

- It is important to involve personal-care attendants as well as family members in the treatment process.
- Physicians and others involved in treatment must recognize and resolve any discomfort they may have in relating to people with disabilities.
- Physical exercise is just as important for those with physical disabilities as it is for others. A range of suitable exercises which can be incorporated into a regular exercise program can be found for most individuals with a disability.

Social situation

A major difficulty facing people with physical disabilities is isolation as a result of restricted access to local services and events, communication barriers such as hearing impairment, medical problems which may require frequent institutional treatment and care, and discomfort on the part of members of the community. Other difficulties, many of which are interconnected, may include widespread negative attitudes, barriers to education and employment, low income, unsuitable housing, dependence on others, and poor self-image.

As well as using alcohol to control the chronic physical pain which may accompany the disability, patients may use alcohol in an attempt to diminish the emotional pain caused by the difficulties listed above.

A treatment program must attempt to deal with these difficulties. On an immediate and practical level, assistance must be given in areas such as housing, transportation, mastering basic skills relating to daily activities, job retraining, and linking up with others in similar situations.

In addition, treatment goals must include resolution of any outstanding issues connected with the disability; achievement of as much independence as possible in all spheres of life; exploration of major areas of personal well-being, ranging from the intellect to sexuality; and improved self-esteem and self-image. For those whose alcohol-related problems preceded their disability, there may be other underlying issues which must also be addressed.

Patients with psychiatric problems

An occasional complication in the treatment of patients with alcohol dependency is the presence of psychiatric problems such as affective disorders, anxiety states, and schizophrenia. Unfortunately, many patients with psychiatric and alcohol-related problems fall between the cracks as no one wants to treat them. Due to the severity of their distress, however, it is crucial that these patients not be ignored. In addition, patients with psychiatric and

alcohol-related problems have special treatment requirements which must be incorporated into any treatment program.

Diagnosis

Differentiating between psychiatric problems that are secondary to the alcohol dependency and those that are primary is essential. For example, symptoms of withdrawal may be similar to those of psychiatric disorders. Some patients have been misdiagnosed as schizophrenic when in fact they were experiencing alcoholic hallucinosis. A diagnosis is often difficult to make until several weeks or months after alcohol consumption has ceased.

If symptoms persist and are not the result of permanent damage from alcohol, other causes such as thyroid dysfunction, food and environmental sensitivities, and nutritional deficiencies should be investigated before making a diagnosis.

This population is at high risk of suicide and physicians must check for suicidal ideation.

Treatment options

In many cases abstinence, a nutritious diet including nutritional supplements such as thiamine, and enrolment in an alcohol treatment program may be all that is necessary to clear up secondary alcohol-related psychiatric problems. On the other hand, treatment for patients with primary psychiatric problems complicated by alcohol may have to include supportive psychotherapy and psychoactive medication.

It is possible to treat some cases on an out-patient basis, but severe cases should be referred to a psychiatric facility. Once symptoms are under control, psychiatric patients can be integrated into regular drug and alcohol treatment programs unless there is severe dysfunction. Those requiring long-term care may need to be referred to a nursing home.

Complications of medication

Medication should be avoided as much as possible. In cases where it is necessary, great care must be taken to minimize the possibility of cross-addiction.

Prescribed drugs should be monitored carefully; occasionally the dosage may need adjustment to prevent over-sedation, which can interfere with participation in a drug and alcohol treatment program.

Co-ordinating a treatment approach

It is crucial for psychiatrists involved in treating the psychiatric disorder and all personnel who are treating the alcohol dependency to co-operate with each other in terms of support, information-sharing, and treatment approach. Difficulties arise when patients in detox centres are told to stop taking their pills; they may become psychotic and commit suicide. Difficulties also arise when the drinking problems of patients under psychiatric care are ignored.

It is important for psychiatrists to recognize that the alcohol dependency as well as the psychiatric illness must be treated. At the same time, alcohol counsellors must recognize the existence of problems other than alcohol dependency and that some patients may require medication.

Homeless people

The homeless population suffers more extreme problems than most other groups. In addition to serious medical complications, they have no back-up or support systems. For the most part they receive only sporadic medical care, and the care they do receive may be perfunctory because it is thought their situation is hopeless.

As a result of the diversity of this population, which includes unemployed youth, prostitutes, psychiatric patients, and those who are elderly and destitute, treatment needs vary considerably. Chronic recidivism and transiency among this group present a particular challenge to treatment programs. In general, it is essential to co-ordinate the efforts of the various agencies with which homeless people may be involved.

Medical considerations

Medical care must be thorough and intensive, due to the frequently severe nature of medical problems. For example, malnutrition and neurological symptoms are common. There is also a high incidence of infectious diseases including tuberculosis, pneumonia, bronchitis, and sexually transmitted diseases. Because of their transient lifestyle homeless people are subject to an extremely high rate of trauma from fights and falls, which puts them at more risk of complications such as subdural hematomas.

Social situation

A combination of lack of adequate housing, lack of income, and lack of a broad range of social skills necessitates urgent improvement in the social situation of homeless people. The protective environment that a half-way house or shelter would provide is one option to consider.

Patients with multiple addictions

In addition to problems with alcohol, many alcohol-dependent patients have problems with other substances. These include prescription drugs such as minor tranquilizers; over-the-counter medication such as 222's and Gravol; and illicit substances such as heroin, cocaine, and cannabis products.

Diagnosis

The current trend is towards multiple drug use; when alcohol dependency is suspected, involvement of other drugs should also be investigated. Cross-addiction is common, often resulting from the use of prescribed and over-the-counter medication to control symptoms such as tension and depression.

Treatment considerations

When treating patients with more than one addiction there are a few points to take into account:

- Detoxification is more difficult when two or more substances are involved. Withdrawal from drugs such as barbiturates and sedative/hypnotics may require hospitalization, especially when combined with alcohol withdrawal.

Treatment concerns of the multiple-addicted

- Dangers of side-effects and accidental overdose are increased.
- A change in attitude may be required for these patients who often rely on chemical solutions rather than developing their own abilities and problem-solving skills.
- A longer treatment period may be required than for patients with a single dependency.
- Food addictions and other eating disorders may become more obvious or worsen after treatment for dependency syndromes, and must be addressed.
- Addictions to caffeine and tobacco should not be ignored. Patients may find it easier to achieve abstinence and avoid relapse when all addictions are controlled.

Physicians

It should be noted that the material below, although written specifically about physicians, applies equally well to nurses and other health care workers.

Early identification and diagnosis

There are two major barriers to the early identification and diagnosis of alcohol dependency among physicians. The first is the attitude of the dependent physicians, who may refuse to acknowledge their dependency partly because it does not correspond with their view of themselves as healers and partly because of fear of financial loss and loss of prestige. Others may feel that by virtue of their medical training they are capable of handling their dependency problems themselves and refuse to seek help.

The second barrier is the attitude of their colleagues, who may suspect a problem but are reluctant to interfere. Reasons for this reluctance may include the medical profession's ethic of non-interference, an unwillingness to accept that physicians are subject to the same dependency problems as the rest of the population, and a desire to protect the alcohol- or drug-dependent physician. Ignoring the problem does not serve the best interests of the

dependent physician, whose condition will likely deteriorate unless some form of intervention occurs.

Treatment considerations

Several factors involved in the treatment of alcohol-dependent physicians are discussed below:

Treatment concerns of physicians

- It cannot be assumed that physicians are already knowledgeable about alcohol and drug dependency. Their need for accurate information in this area should not be overlooked.
- Support from colleagues, in addition to support from families, is extremely important and can enhance treatment effectiveness.
- A potent motivator for many physicians who are resistant to accepting treatment is the threat of losing their hospital privileges and their licence to practise medicine.
- Some physicians may resist the patient role. In addition, despite the similarity of problems among those with a dependency problem, they may find it difficult to relate as a peer in a treatment program composed mostly of lay people. If it appears that the degree of discomfort for the physician will be high in a regular group, a program designed specifically for professionals can be considered.

Changes in lifestyle and attitudes

A physician's attitudes and lifestyle may in some cases be contributing factors to dependency. The mental, physical, and emotional demands of practising medicine can be overwhelming unless limits are set and healthy ways of reducing stress are incorporated into daily life. Physicians should learn positive ways to deal with the grief, fear, and other emotions they encounter regularly in the course of their medical practice. They must also learn not to neglect their own and their family's needs.

8 Support for the Family

Families affected by alcohol dependency may require various forms of support: medical treatment, education about alcohol dependency and its effects on family relationships and functioning, the opportunity to share feelings and experiences with others in similar situations, and counselling. Assistance in dealing with issues such as violence, finances, and legal questions may also be required.

While physicians will be able to provide some of this support, in most cases they will find it necessary to refer families to other resources such as drug and alcohol rehabilitation centres, self-help groups, organizations which provide social services and crisis intervention, and churches. These and other resources are listed on pages 90-100 in the Appendix.

Consequences of living with alcohol-dependent persons

Some of the consequences of living with alcohol-dependent persons may include:

- Deteriorating family relationships.
- Negative feelings such as shame, guilt, and fear.
- Isolation from friends and community.
- Emotional, physical, and sexual abuse.

As a result, family members often suffer physically and emotionally. Common symptoms among spouses, children, and parents include depression, anxiety, fatigue, headaches, and stomach problems. Children may indicate emotional distress by running away or doing badly at school. They may also carry adverse effects such as a poor self-image and an inability to form close relationships into adulthood.

Some family support issues that physicians should be aware of are discussed below.

Parenting

Ideally, support for parents and children should begin before the birth of a child in situations where alcohol dependency is an ongoing problem. The new-born period is often extremely stressful for parents, exacerbating any drinking problems and putting children at risk.

Parents should be made aware of the needs of their children. These needs are often ignored not only when one or both parents are actively drinking, but during the recovery period when parents' attention is focused on attending meetings and other aspects of the recovery process. Supports must be maintained, even after parents have achieved sobriety.

Explanations of alcohol dependency must be given in a manner appropriate to the age of the child. For example, being told that their parents must spend the rest of their lives recovering may make younger children feel afraid and insecure. In addition, it is important that children understand that they are not to blame for their parents' dependencies.

Because many alcohol-dependent parents themselves grew up in dysfunctional homes, parenting courses may be useful in helping them learn healthy ways of parenting.

Fetal alcohol syndrome

Early diagnosis of fetal alcohol syndrome and fetal alcohol effects is important because of the many associated medical complications that may require follow-up and correction. In addition to retarded growth, facial dysmorphology, and microcephaly, there may be cardiovascular, genitourinary, and ophthalmologic abnormalities. Other problems such as hearing loss and a higher than average tendency to infections may also accompany the syndrome. Central nervous system abnormalities are common.

Emotional warmth and a program of intellectual and sensory stimulation, physical activity, and good nutrition are essential, regardless of the child's level of mental development. In addition, parents should be given information on how to manage difficulties such as poor sucking ability, sleep disturbances, and behaviour problems.

Children at risk

Because children are extremely vulnerable, and for a number of reasons may be either unable or unwilling to articulate distress, physicians must be alert to the possibility of child abuse or neglect and take appropriate action. They must also be alert to behaviour disorders, suicidal tendencies, and any other problems that may require professional intervention.

Families in abusive situations

Identification of an abusive situation is extremely important to the safety and well-being of family members. Signs of general distress which indicate the presence of problems including the possibility of physical or sexual abuse follow:

Signs of general distress

- Changes or disturbances in behaviour such as withdrawal from family and friends, running away from home, and alcohol and drug abuse.
- Disturbances in eating habits.
- Disturbed sleep patterns such as insomnia and nightmares.
- Physical complaints such as fatigue, stomach-aches, headaches, and muscle tension.

- Emotional problems such as depression, anxiety, and the development of unusual fears and phobias.

Another indication that something is amiss is the presence of abnormal patterns of interaction between parent and child. Examples include children who either cling to their parents an extreme amount or distance themselves an extreme amount, and parents who either appear disinterested in their children or who are overly authoritarian. However it is important to interpret situations cautiously, taking into account that wide variations in style exist even among healthy families.

An abbreviated list of signs indicating that a child or adolescent is being sexually abused follows. The presence of a number of these signs in combination with the signs of general distress listed above may indicate that sexual abuse is taking place. The presence of only one or two signs is less suggestive.

- Expression of sexual knowledge and interest or concern inappropriate to age in language, drawings, and play activities, as well as through preoccupation with genitals of self or others, compulsive masturbation, and inappropriate forms of affection such as tongue kissing.

Indications of sexual abuse

- Hickeys or bruises in areas of neck, face, breasts, or genitals.
- Pain, itching, or bleeding in genital area.
- Venereal disease.
- Compulsive sexual activity.
- Pregnancy.

Signs of physical abuse include repeated occurrences of bruises, burns, and fractures. Bruises and burns associated with physical abuse are often found on parts of the body usually covered by clothing such as the chest area. Many times individuals will not have reasonable explanations for their own or their children's injuries.

Specific rather than general questions should be asked. For example, "Does your spouse ever push you? Slap you? Hit you? Kick you? Does your spouse ever push your children? Hit or kick them?"

If an abusive situation is identified, the family should be referred to a shelter for battered women, women's centre, Family Service Bureau, or other resource appropriate for the particular situation (see page 99 in the Appendix). At the same time as a referral is made, a follow-up appointment should be suggested. In addition, the law requires that all cases of suspected physical or sexual abuse of children be reported to either the Child Protection section of the Department of Social Services or the local police service.

The physician should note that it is not necessary for a family to move into a shelter for battered women in order to use the shelter's services. For example, counselling is available to women either on the phone (some shelters have 24 hour lines) or in person, whether or not they are living at home.

Reading and resource material on violence should be made available to women not yet ready to accept referrals beyond the physician's office. This material will help them gain a better understanding of their situation and encourage them to seek further help.

The physician should document visits carefully, noting evidence of both physical injury and emotional distress. This may be important in court cases.

It is crucial that the physician do a thorough examination of women and children who have just been beaten and not rely on them to indicate injuries. Due to shock they may not be aware of pain or trauma until 24 hours or more after the beating has taken place. In the same way a pregnant woman may not relate her spotting or hemorrhaging to sexual abuse.

In all cases the physician must ask direct questions rather than assume information will be volunteered.

The physician must avoid blaming women who are victims of abuse. It is important to understand the psychological and practical difficulties which may prevent women in abusive situations from leaving or staying away from their spouse. Reasons for staying include hope that the loving times that occur between the bouts of violence will become permanent, a desire to keep the family together, feelings of guilt and worthlessness, and fear of retaliation and economic hardship.

The need for any medication should always be critically examined. When there are indications of such need, physicians should check which medications have been previously prescribed by themselves or other physicians before writing out a prescription.

The physician should recommend to mothers that they notify the school of the situation. This will result in a more sympathetic understanding of children who may be displaying behaviour problems.

Separation and divorce

In many cases a major question facing spouses is that of separation or divorce. Whether separation or staying together is best will vary from situation to situation. When deciding, spouses should know that their interests and the interests of their children must come before those of the alcohol-dependent patient; this is particularly clear in cases where there is actual threat of physical violence. Appropriate support should be given to spouses whatever their decision.

It is important to note that referrals to a marriage counsellor are inappropriate for couples in abusive situations. The woman will be unable to discuss her real feelings in the presence of her spouse and should be referred for individual counselling. The spouse should be referred to a program for batterers.

Recovery

Support is also needed during the initial recovery period. This time period with all its upheaval and changes can be as disorienting and difficult for family members as for the alcohol-dependent patient. For example, the roles of family members may be in the process of being redefined. In addition, problems not related to alcohol may be more obvious and require attention.

9 Current Needs and New Directions

If the problems associated with the use of alcohol are to be successfully overcome, they must be faced openly, rationally, and humanely. Because many factors contribute to alcohol dependency, a multifaceted approach to the challenge presented by this syndrome is required. This may mean changes in areas such as attitudes, lifestyles, and social and political conditions. A discussion of some of the ways in which physicians can help reduce the number and severity of alcohol-related problems follows.

Early detection

Being aware of the early signs of alcohol dependency, or, even better, spotting problems before they develop into dependency, is extremely important. The sooner problems are detected the more likely that treatment will be effective.

Education

Physicians are in an ideal position to educate their patients and the public by doing the following:

- Correcting the many misconceptions surrounding alcohol dependency and other alcohol-related problems. Increased sensitivity and awareness on the part of all members of the community will result in earlier identification and treatment and a more supportive atmosphere for alcohol-dependent patients.

Public education

- Informing patients about nutrition, exercise, stress-control, and constructive problem-solving. Lifestyle is an important factor in decreasing the likelihood of alcohol-related problems.
- Encouraging healthy attitudes to alcohol and healthy drinking habits. It is important for adults who choose to drink to maintain healthy attitudes and drinking habits not only for their own sake but also to provide good role models for children who learn behaviour patterns at a young age.

Healthy attitudes and drinking habits

Healthy attitudes and drinking habits which physicians should encourage among their patients and the general public follow:

- The decision to drink or abstain is a matter of individual choice; individuals should not be subjected to moral or social pressure to change one way or the other.
- Abstinence and moderate drinking are both socially acceptable; excessive drinking and severe intoxication are not.
- Intoxication should not be used as an excuse for violent or aggressive behaviour.
- Those who drink should consume alcohol mainly with meals and sip their drinks slowly rather than gulp.
- Drinking and driving is dangerous and must not be tolerated.
- Drinking to the point of intoxication while participating in any activity requiring co-ordination, alertness, or visual acuity is also dangerous and must be avoided. Examples of such activities include swimming, boating, and even smoking.
- Alcohol should be used for flavour and conviviality, and not to prove virility or adulthood, solve problems, induce sleep, or release tension.

Working with other community resources

Physicians should be knowledgeable about, support, and make use of a broad range of community resources. Community agencies and organizations are necessary to provide a complete continuum of care by supplementing the specialized help provided by drug and alcohol treatment programs.

Some areas in the community resource network which could be improved with the help and advice of physicians and other interested individuals are discussed below.

Lack of co-ordination

A co-ordinated effort in tackling alcohol-related problems is required. At present there is a great deal of fragmentation which is counterproductive. More co-ordination between local groups, industry, and different levels of government in areas such as programming and cost sharing would be beneficial to everyone.

Gaps in services

Gaps in services must be identified and rectified. For example:

- Individual health regions should be made self-sufficient in handling the majority of cases of alcohol dependency. This requires having adequate resources to do initial assessments and detoxification, liaise with groups such as Alcoholics Anonymous and Al-Anon, and provide out-patient services. Local hospitals are an under-utilized option which could provide these services in many communities. At the same time, access to a major health care or addiction facility for more serious problems is important.

Gaps in services

- More programs designed specifically for young children of alcohol-dependent parents are needed.
- More attention must be paid to fulfilling the special needs of specific populations such as women, the elderly, and Native people. For example, programs such as the Mobile Community Treatment Program in Northern Saskatchewan should be encouraged. The Mobile Community Treatment Program model emphasizes community participation, Native culture and spirituality, and responds to the needs of Native people in isolated areas by bringing treatment teams to the community rather than requiring alcohol-dependent patients to travel long distances to treatment facilities.
- Employee Assistance Programs should be expanded. These programs are helpful in identifying individuals with alcohol-related problems as well as in providing an incentive to accept treatment. At the same time as the establishment of EAPs is encouraged, serious consideration should be given to instituting workplace Wellness Programs, which emphasize preventive measures such as exercise, nutrition, stress-control, and smoking cessation. In some cases improving workplace conditions will eliminate factors contributing to alcohol-related problems.

Lack of familiarity among agencies

Personnel from various social service agencies and groups could rotate through different community programs in much the same fashion as an intern rotates through different services in hospital training. This would ensure familiarity with other services and a wider understanding of community problems.

Lack of evaluation

Much knowledge can be gained by critically examining the results of all programs. Ongoing evaluation is crucial if there is to be improvement in treatment effectiveness.

Influencing public policy

Public policy can have a major effect on the extent and nature of alcohol-related problems. For this reason it is extremely important for physicians to become involved in its development through the personal and organizational means available to them. Some of the positive directions in which public policy should be moved are outlined below.

To ensure advertising ethics

The Canadian Radio-Television and Telecommunications Commission (CRTC) should begin to regulate alcohol advertising on the national level in the same way that advertising in Saskatchewan is regulated: no family scenes, minors, or dangerous activities allowed. In addition, on both federal and provincial levels, alcohol should not be associated with celebrities, sporting events, masculinity, or sexual or social success.

Further, an educational message component should be tied to alcohol advertising. The Saskatchewan regulations require media to provide educational messages equal to 15 per cent of the time or space dedicated to advertisements. The Honourable Jake Epp, Minister of Health and Welfare, and the House of Commons Standing Committee on Health and Welfare, have made similar recommendations for advertising at the national level.[1]

To implement further strategies to prevent drinking and driving

There are still many people who drink and drive. Some of the strategies to prevent this include stricter enforcement of laws, stiffer penalties, random spot checks of drivers, and public education.

To reduce over-all consumption through alcohol control

There is evidence that reduced consumption of alcohol in a population is associated with fewer alcohol-related problems. Methods of reducing consumption include taxation on alcohol, enforcement of a minimum drinking age, and restrictions on when and where alcohol is available. Government should implement controls consistent with reducing over-all consumption.

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[1] *A Brief to the Canadian Radio-Television and Telecommunications Commission (CRTC) on Alcohol Advertising on Television and Radio.* Ottawa: Health and Welfare Canada, Nov., 1985.

To require warning labels

Labels on beverage alcohol should warn consumers of the risks associated with drinking alcohol. These risks include fetal alcohol syndrome, impaired driving, the danger of combining alcohol and certain medications, adverse effects on those with diabetes and other medical problems, and the development of hypertension, liver disease, cancer, chronic obstructive pulmonary disease, and alcohol dependency.

To gain funding revenue from alcohol surtax

Governments should establish a dedicated surtax on alcohol sales to provide funding for alcohol dependency programs in the areas of education, intervention, treatment, and research.

To improve social conditions of disadvantaged groups

Drinking problems do not exist in isolation from other social, psychological, economic, and health problems. Basic to the family physician's role in treatment is an understanding of the sociological and other difficulties which may lead individuals to seek medical advice. As the late Dr. E.M. Jellinek, one of the leading contributors to present day knowledge of alcohol dependency, wrote, "Alcoholism may be the source of much human misery, but fundamentally human misery is the source of much alcoholism."[2]

The alcohol dependency syndrome is multifactorial and in some cases social and political conditions such as poverty, unemployment, discrimination, and lack of power may contribute to its development. These factors must be addressed; helping patients achieve sobriety is only half the answer for those who must return to the same situation in which they started to drink in the first place.

The only lasting solutions to alcohol dependency will combine individual, community, and society-wide approaches. Supporting public policies that attempt to address the conditions that give rise to social stresses is as important as treating individuals suffering from alcohol dependency.

Conclusion

There are no simple answers to complex social health issues such as alcohol dependency; there is no "magic bullet" which will solve all alcohol-related problems. What is required is a committed, aware, and open-minded community which uses a combination of approaches to provide for the total human needs of its population, including the unique and personal needs of those with alcohol-related problems.

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[2]Jellinek, E.M. *The Disease Concept of Alcoholism.* New Haven, Connecticut: College University Press, 1960.

Appendix

Drinking questionnaire

An example of a drinking questionnaire which has been found useful follows. The patient and family member should fill this out together to ensure more accurate results, putting a question mark where disagreements arise. The physician can then review the answers with them.

A "yes" to more than five of the following questions may indicate the possibility of a developing alcohol dependency. However it must be kept in mind that this questionnaire should be used to diagnose alcohol-related problems only in conjunction with a number of other diagnostic measures.

Drinking questionnaire

	yes	no
Degree of preoccupation with alcohol		
1. Do you look forward to the end of a day's work so you can have a couple of drinks to relax?	____	____
2. Do you look forward to the end of the week so you can have some fun drinking?	____	____
3. Does the thought of drinking enter your mind when you should be thinking of something else?	____	____
4. Do you feel the need to drink at a particular time of the day?	____	____
An increased tolerance		
5. Do you find that you can often drink more than others and not show it too much?	____	____
6. Has anyone commented on your ability to hold your liquor?	____	____
7. Have you wondered about your increased capacity to drink?	____	____
8. If yes, are you proud of your increased capacity to drink?	____	____
Gulping of drinks		
9. Do you order doubles?	____	____
10. Do you like to gulp down your first two or three drinks fairly fast?	____	____
11. Do you have a couple of drinks before going out to a party or dinner?	____	____
12. Are you disappointed when drinks are not served at a restaurant or a private party?	____	____

	yes	no
13. Do you feel like getting high afterwards and try to maintain that high through more drinking?	____	____
Drinking alone		
14. Do you stop in a bar and have a couple of drinks by yourself?	____	____
15. Do you drink alone?	____	____
Use as medicine		
16. Do you drink to calm your nerves or reduce tension?	____	____
17. Do you drink to escape from worries or problems?	____	____
18. Do you use alcohol as a night cap to help you sleep?	____	____
19. Do you use alcohol specifically to relieve physical or mental discomfort?	____	____
Blackouts		
20. Following an evening's drinking, have you had the experience of not being able to remember everything that happened the night before?	____	____
21. After a night of drinking, have you had difficulty recalling how you got home, or difficulty recalling where you parked your car?	____	____
Supply of alcohol		
22. Do you take care to have a supply of alcohol on hand just in case?	____	____
23. Do you hide a bottle in case you might need a drink sometime?	____	____
24. Have you kept a bottle in the trunk of your car, in the bottom drawer of your desk, or in your purse just in case?	____	____
25. Is your supply of alcohol never more than an arm's length away from you?	____	____
Unplanned drinking		
26. Do you stop somewhere to have a drink or two and then end up having many more than you planned?	____	____
27. Do you find yourself stopping in for a drink when you planned to go straight home or somewhere else?	____	____

	yes	no
28. Do you drink more than you think you should?	____	____
29. Is your drinking different than you would like it to be?	____	____
30. Do you try to get someone to buy liquor for you because you are ashamed to buy it yourself?	____	____
31. Do you plan in advance to "reward" yourself with a little drink after you've worked hard?	____	____
Morning tremors		
32. Have you had tremors in your hands and body after a night of drinking?	____	____
33. Do you find you have to have a drink in order to calm your nerves?	____	____
Marital		
34. Is drinking making your home life unhappy?	____	____
35. Has your spouse threatened to leave you because of your drinking?	____	____
36. Have you lost friends or family members because of your drinking?	____	____
Economic		
37. Have you had financial difficulties as a result of your drinking?	____	____
Employment		
38. Have you missed work because of a hangover?	____	____
39. Have you lost a job because of drinking?	____	____
40. Has drinking caused you to be less efficient in your work?	____	____
41. Have you been threatened with a loss of job because of drinking?	____	____
Physical		
42. Has a doctor told you to cut down or stop your drinking for any reason at all?	____	____
43. Have you been treated for drinking by your doctor?	____	____
44. Have you been hospitalized because of your drinking?	____	____
If so, how often? _____		
45. Are you using pills or other drugs in addition to alcohol?	____	____

	yes	no
46. Have you experienced withdrawal symptoms (including delirium tremens or convulsions)?	____	____
Social		
47. Do you definitely prefer to associate with people who drink?	____	____
48. Do you seek out individuals who drink in the same pattern as you do?	____	____
49. Do you avoid non-drinkers as companions?	____	____
50. Do you do things while drinking that you are ashamed of later?	____	____
51. Have you felt remorse after drinking?	____	____
52. Do you neglect previous hobbies and interests to drink?	____	____
53. Do you resent anyone's comments on your drinking habits?	____	____
Legal		
54. Have you become involved in fighting after drinking?	____	____
55. Have you been arrested for disturbance of peace?	____	____
56. Have you been charged with impaired driving?	____	____
If yes, how many times? _____		
57. Have you lost your driver's licence because of drinking?	____	____

Questionnaire for the spouse of the alcohol-dependent individual

This questionnaire for spouses can be used in the following ways:

- To help the physician identify problems in the family of the alcohol-dependent patient such as financial distress, physical or sexual abuse of spouse or children, isolation, and alcohol-related problems.
- To provide direction to the physician for follow-up action and referral.
- As a starting point in discussions with spouses to help them recognize problem areas and work out constructive ways of dealing with them.
- To inform alcohol-dependent patients of the effect their drinking is having on their spouse and children.

Questionnaire for the spouse

To provide the best care possible for your family it is important for the physician to be aware of any major problems you and your children may be facing and for this reason it is hoped you will fill out the following questionnaire.

Because some of the questions concern sensitive issues you may prefer not to answer all of them. However if there are any questions that you find upsetting, please feel free to discuss them with the physician either now or at some future date.

Be assured that all of your responses will be kept confidential. The only exception is that the physician is required by law to report cases of suspected child abuse.

		yes	no
1.	Are you working outside your home?	____	____
2.	How much say do you have in determining how money is spent? all ____ some ____ none ____		
3.	Do you have sufficient money to meet living requirements?	____	____
4.	List activities outside the home in which you participate (for example clubs, school, church, recreation): _____ _____		
5.	If not currently active, were you at one time?	____	____
6.	Do you feel controlled by your spouse?	____	____
7.	Are you scared of your spouse?	____	____

	yes	no
8. Has your spouse ever pushed, slapped, punched, kicked or physically attacked you in any other way?	____	____
9. Has your spouse ever been physically violent (pushing, slapping, punching, kicking, etc.) towards your children?	____	____
10. Have you or your children ever required medical treatment for injuries resulting from your spouse's violent behaviour?	____	____
11. Has your spouse ever sexually abused you (e.g. inflicting pain, forcing you to engage in sexual activity against your will, physically attacking breasts or genital area, treating you like an object)?	____	____
12. Is your spouse's behaviour with your children ever sexually inappropriate (e.g. touching, fondling or kissing in a sexual way, sexual comments, sexual intercourse)?	____	____
13. Has your spouse ever verbally abused you (e.g. called you names, insulted you, put you down)?	____	____
14. Have you ever left your spouse?	____	____
15. Do you ever find yourself taking out your anger on your children (e.g. hitting, verbal insults, excessive yelling, extreme punishments, overly critical, etc.)?	____	____
16. Do your children exhibit any of the following signs or symptoms (please check the appropriate categories):		
_____ Changes or disturbances in behaviour (e.g. withdrawal from family and friends, extreme clinginess, running away from home, alcohol and drug abuse, etc.)		
_____ Disturbances in eating habits.		
_____ Disturbed sleep patterns (e.g. insomnia, nightmares).		
_____ Physical complaints (fatigue, stomach-aches, headaches, muscle tension).		
_____ Emotional problems (depression, anxiety, unusual fears or phobias).		
17. Do you have people (friends, neighbours, relatives or others) from whom you receive emotional or practical support?	____	____

		yes	no
18.	Does your spouse have people apart from you with whom he or she can discuss personal feelings?	____	____
19.	Are you concerned that your spouse may injure him/herself?	____	____
20.	Are you concerned that your spouse may injure others?	____	____
21.	Do you ever drink with your spouse?	____	____
22.	Are there periods of time that you have difficulty remembering?	____	____
23.	Is your spouse interested in sexual activity?	____	____
24.	Is there anything else you would like to mention or ask about?		

_____

_____

_____

_____

_____

_____

_____

Blood alcohol level[1]

When a sample of blood is tested for alcohol, the findings are reported in the form of a blood alcohol level (BAL) or blood alcohol concentration (BAC) which measures the percentage of alcohol in weight, in a fixed volume of blood.

In Canada, BALs are usually measured in milligrams per 100 millilitres of blood. For example, 80 milligrams of alcohol per 100 millilitres of blood is expressed as 80 mg %. This may also be expressed in grams per 100 millilitres as .08%.

Some laboratories in Saskatchewan report BALs in millimoles per litre (mmol/L). These units can be converted into mg % by multiplying by a factor of 4.6. For example, a BAL of 17.4 mmol/L is equivalent to 80 mg %. For quick reference, see the conversion table below.

Conversion table: mmol/L to mg %

mmol/L	mg %	mmol/L	mg %
10	46	60	276
15	69	65	299
20	92	70	322
25	115	75	345
30	138	80	368
35	161	85	391
40	184	90	414
45	207	95	437
50	230	100	460
55	253	105	483

In Canada, drivers with BALs over 80 mg % are considered to be legally intoxicated. However, impairment can occur at lower levels than this. Moderate intoxication usually occurs with BALs around 150 mg %, and severe intoxication with BALs above 200 mg %. The fatal range is usually considered to start around 400 mg %, but death can occur at 250 mg %, when deep or total coma is involved.

The chart on page 82 can be used to estimate the BAL likely to result after consuming various quantities of alcohol.

[1] This section was prepared by Mary McNutt, Researcher.

Calculation of estimated blood alcohol level in mg %

For convenience, quantities of alcohol consumed are expressed in this chart in drink-equivalents, which each contain approximately 1.7 centilitres of absolute alcohol.

One drink equals:

- One 12 ounce bottle of 5% beer.
- 1.5 ounces of rum, rye, brandy, gin, vodka or other spirits.
- 3 ounces of fortified wine.
- 5 ounces (one glass) of table wine.

Males:

Body weight	Number of drinks									
in lbs.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
100	43	87	130	174	217	261	304	378	391	435
125	34	69	103	139	173	209	242	278	312	346
150	29	58	87	116	145	174	203	232	261	290
175	25	50	75	100	125	150	175	200	225	250
200	22	43	65	87	108	130	152	174	195	217
225	19	39	58	78	97	117	136	156	175	195
250	17	35	52	70	87	105	122	139	156	173

Females:

Body weight	Number of drinks									
in lbs.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
100	50	101	152	203	253	304	355	406	456	507
125	40	80	120	162	202	244	282	324	364	404
150	34	68	101	135	169	203	237	271	304	338
175	29	58	87	117	146	175	204	233	262	292
200	26	50	76	101	126	152	177	203	227	253
225	22	45	68	91	113	136	159	182	204	227
250	20	41	61	82	101	122	142	162	182	202

N.B. This chart is based on calculations for people with ideal body weight for their height, who are not taking other drugs.

Time factor table (mg %)

Hours since first drink:	1	2	3	4	5	6
Subtract from BAL:	15	30	45	60	75	90

To use the chart:

Find the appropriate number from the chart according to drinks consumed, sex and weight. From this figure subtract the number from the time factor table corresponding to the number of hours since the first drink. For example, for a 125 lb. woman who has had four drinks in two hours, the estimated BAL would be 132 mg % (162 - 30).

Factors which affect blood alcohol level

Sex

Women generally have relatively more fatty tissue and less muscle tissue than men. Since fatty tissue has a smaller blood supply than muscle tissue, ingestion of equal amounts of alcohol by persons of the same weight will result in higher BALs in women than in men.

Weight

Since generally the heavier one is, the greater is one's blood supply, it follows that a heavier person will have a lower BAL after consuming a given amount of alcohol than will a lighter person. For overweight people, however, excess weight is stored in the form of fat. Since the blood supply is not increased in proportion to the additional weight, an overweight person of 140 lbs. will have a higher BAL than a lean person weighing 140 lbs., after each has consumed the same amount of alcohol.

Time of consumption

The time factor is based on the rate at which alcohol can be metabolized by a 150 lb. man. However, this rate can vary as much as 50% in either direction. Many people believe that heavy drinkers without liver disease can develop an increased metabolic tolerance of alcohol. The rate of alcohol metabolism is decreased for those with liver disease.

Food consumption

After eating, the absorption of alcohol does slow down, but to a lesser extent than is commonly believed. Also, the effect of food on the BAL varies according to the individual.

Given all the potential for individual variation, the chart should be used only as a rough guide to BAL and not as a means to determine fitness to drive after drinking.

Legal intervention

Following is a brief summary of sections under the Saskatchewan Mental Health Act which can be used to force examinations or treatment of individuals who are a danger to themselves or others. All in-patient facilities have to be designated as facilities by the Minister of Health to legally hold a patient.

Section 18 (Involuntary out-patient examination)

An examining physician who feels a patient requires a psychiatric examination to determine the appropriateness of admission to an in-patient facility may sign a certificate authorizing apprehension of the patient for this purpose. The examination of the patient must take place within 24 hours of arrival at place of examination.

Section 19 (Judge's warrant)

Any person (friend, family member, landlord, or other) may swear an information before a Judge of the Provincial Court if he or she believes, on reasonable and probable grounds, that the person named in the information requires an examination to determine whether that person should be admitted to an in-patient facility. If the Judge agrees this is necessary a warrant will be issued authorizing apprehension of the patient for this purpose. The examination of the patient must take place within 24 hours of apprehension.

Section 23 (Admission on order or warrant)

Patients may be admitted to in-patient facilities and detained on warrants of the Lieutenant Governor in Council, on orders of the Commissioner of the Correctional Service of Canada when transferring patients from penitentiaries, and on orders pursuant to the Criminal Code.

Section 24 (Admission on medical certificates)

A physician with admitting privileges to an in-patient facility who examines a patient and concludes that the patient is suffering from a mental disorder and otherwise meets the criteria for committal set out in Section 24 may issue a certificate authorizing the detention of the patient in the facility. In order for the patient to be detained more than three days a second physician must examine the patient and issue a certificate. One of the physicians must be a psychiatrist.

The certificates are valid for 21 days. If the patient is to be detained for more than 21 days he or she must be examined again and two new certificates issued. Detention can continue indefinitely for 21 day periods based on further certificates.

Sections 32 to 36 (Appeal and review procedures)

The patient detained in an in-patient facility under Section 24, the nearest relative, and an official representative for the region must be notified immediately by the physician of the right to appeal. Procedures may then be followed for appeal if it is so wished. The decision of a subsequent review panel may also be appealed.

Valley Chart

By illustrating graphically that recovery is possible, the Valley Chart may motivate some alcohol-dependent patients and their spouses to co-operate with treatment. However it should be used cautiously; because the course of a dependency varies widely from individual to individual, the Valley Chart is not applicable to everyone.

Drug classification chart

A classification of drugs which have addictive potential follows.[1]

Central nervous system depressant

This group includes sedative/hypnotics (beverage alcohol, barbiturates, and inhalants), and minor tranquilizers (benzodiazepines and meprobamate).

It is important to note that the alcohol-dependent patient is at most risk of developing new dependencies with this group of drugs due to cross-tolerance.

Hallucinogens

This group includes cannabis, LSD, mescaline, MDA, PCP, PMA, and psylocybin.

Physical and psychological dependence may occasionally occur in some cases with cannabis. Physical dependence appears not to occur with others in this category, although psychological dependence may.

Mood modifiers

This group includes major tranquilizers (phenothiazines such as chlorpromazine) and mood elevators (tricyclic antidepressants such as Elavil).

While it is unknown whether physical dependence occurs with the use of phenothiazines, it may occur occasionally with antidepressants.

Narcotic analgesics

This group includes codeine, heroin, hydromorphone, meperidine (for example Demerol), methadone, morphine, and opium.

There is a high risk of developing physical dependence with chronic use of narcotic analgesics.

Stimulants

This group includes amphetamines, caffeine, cocaine, diethylpropion, methylphenidate (for example Ritalin), and nicotine.

Strong psychological dependence and increased tolerance can result from the use of stimulants. The degree of risk of dependence varies from stimulant to stimulant.

Further research is required to establish if many of these drugs do lead to physical dependence, that is, increased tolerance combined with well-defined physical withdrawal syndromes.

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[1] This section is mostly based on information contained in Jacobs, M.R., Fehr, K. O. *Drugs and Drug Abuse: A Reference Text, 2nd Ed.* Toronto: Alcoholism and Drug Addiction Research Foundation, 1987.

Alcohol-drug interactions

A description of the results of alcohol-drug interactions follows.[2]

Amphetamines and similar preparations

Excessive rise in blood pressure with alcoholic beverages containing tyramine (chianti, vermouth, pasteurized beer).

Analgesics (mild) (pain reducers)

Increased alcohol intoxication, excessive sedation, stomach and intestinal bleeding, also increases susceptibility to liver damage from acetaminophen.

Analgesics (strong) (pain reducers)

Dangerous depression of autonomic (involuntary) nervous system (respiration, pulse, digestion, glandular activity, etc.), increased intoxication, excessive sedation.

Anticoagulants

Increased anticoagulant effects, possible hemorrhage, easy bruising.

Anticonvulsants

Interference with ability to stop convulsions, exaggerated blood disorder side effects.

Antidepressants (Tricyclic)

Confusion, delirium, increased intoxication, reduction in central nervous system functioning, hypertension (elevated blood pressure), possible life-threatening crisis when taken with red wines.

Antidiabetics

Increased antidiabetic effect, excessive low blood sugars.

Antihistamines

Increased interference with central nervous system, increased sedation, reduced alertness, dizziness, also increased danger when operating machinery or autos.

Anti-hypertensives

Increased blood pressure, dizziness when rising to an upright position (orthostatic hypotension), lowered effectiveness of some of these medications.

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[2] Condensed from *500 Drugs the Alcoholic Should Avoid* by William J. van Almen, Ph.D. Copyright 1983 by Hazelden Foundation, Center City, MN. Reprinted by permission.

Anti-infective agents/antibiotics

Nausea, headache, possible convulsions (especially those taken for urinary tract infections), respiratory paralysis, some rendered less effective by chronic alcohol use.

Antispasmodics (Synthetics)

Drowsiness, blurred vision, rapid pulse, excessive sedation, impotence, mental confusion.

Barbiturates

Increased sedation, increased depression of autonomic (involuntary) nervous system to the point of being life-threatening or fatal.

Contraceptives (Oral)

Increased probability of liver disease and malfunctions, disorders of vision, elevated blood pressure.

Diuretics

Dizziness, lowered blood pressure (hypotension).

M A O inhibitors (All)

Excessive rise in blood pressure with alcoholic beverages containing tyramine (chianti, vermouth, pasteurized beer).

Nitrates (Vasodilators)

Dizziness upon rising (orthostatic hypotension).

Psychotropics (Tranquilizers) (Mild)

Excessive sedation, decreased alertness and judgment, increased likelihood of auto, home, and workplace accidents.

Psychotropics (Tranquilizers) (Strong)

Impairment of the central nervous system functions, excessive sedation, severe impairment of fine and gross motor control, respiratory arrest, can be fatal.

Psychotropics (Phenothiazines) (Moderate to strong)

Same as above

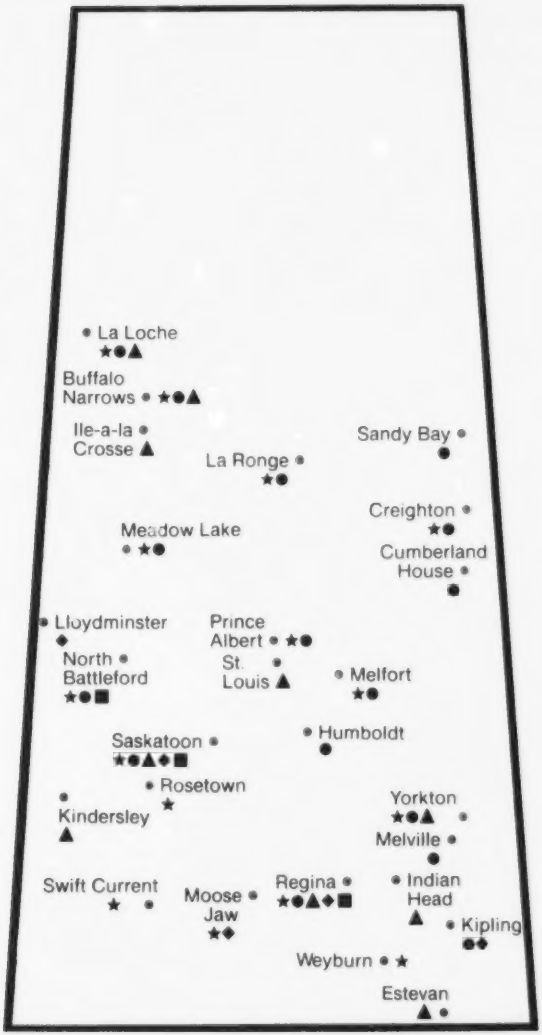
Sedative hypnotics (Non-barbiturate sleep inducers)

Excessive sedation, major interference with autonomic (automatic) and central nervous systems, respiratory arrest, can be fatal.

Sulfonamides (Sulfa drugs)

Increased alcoholic intoxication.

Map of SADAC Regional Services



SADAC Regional Office ★ Out Patient Centre ●
In-Patient Centre ▲ Detox Centre ◆
Residential Recovery Home ■

Resources

There are many resources in the community which can be called on to provide assistance to alcohol-dependent patients and their families.

In addition to the partial list of resources which follows, churches, schools, libraries, government departments such as Social Services, and social organizations may be valuable sources of practical assistance.

Alcohol- and drug-related resources

SADAC Regional Services

The Saskatchewan Alcohol and Drug Abuse Commission, through the Regional Services Division, provides assessment, treatment planning, referral, counselli:g, follow-up, and public education services. These services are provided in 15 regional offices in the following locations:

- **North** (John Kreiser, Regional Director, La Ronge, 425-4362):

  Buffalo Narrows (Jack Bear), Box 220, S0M 0J0, 235-4482

  Creighton (Linda Johnson), Box 10, S0P 0A0, 688-7095

  La Loche (Armand Bekkattla), Box 70, S0M 1G0, 822-2211

  La Ronge (Bruce Chamberlin, Irwin Hennie), Box 5000, S0J 1L0, 425-4546

  Meadow Lake (Jim Daigneault), Box 1000, S0M 1V0, 236-5344

- **Central** (Lynn Tait, Regional Director, Saskatoon, 933-5860):

  Melfort (Floyd Halcro, Gerri Madill), Union Hospital, Box 2390, S0E 1A0, 752-5115

  North Battleford (Glen Allan), 321 Provincial Building, 1146 - 102nd St., S9A 1E9, 446-7414

  Prince Albert (Dick Lewis, Jane Knight), 800 Central Ave., S6V 6G1, 953-2830

  Rosetown (Derek Smith), Provincial Building, Box 1746, S0L 2V0, 882-2027

  Saskatoon (Rick Kuckartz), 503 Canterbury Towers, 224 - 4th Ave. S., S7K 2H6, 933-7442

- **South** (Lyell Armitage, Regional Director), Regina, 787-4620:

  Moose Jaw (Sharon Erickson, Guy Larkin), 028 - 110 Ominica St. W., S6H 6V2, 694-3713

  Regina (Don Fitzsimmons), 2140 Hamilton St., S4P 3V7, 787-4622

  Swift Current (Kevin Hanna), 350 Cheadle St. W., S9H 4G3, 778-8282

  Weyburn (Jerry Fitzgerald), 110 Souris Ave. N.E., Box 2003, S4H 2Z9, 842-2304

  Yorkton (Michael Woods), 120 Smith St. E., Broadcast Place, S3N 3V3, 786-1420

SNACC

Services offered by the Saskatchewan Native Addictions Council Corporation for Native people include treatment, intervention, follow-up, referral, and education.

- **In-patient rehabilitation programs**

  Prince Albert: Social Adjustment Centre (Max Lucier, Director), 205 - 11th St. E., S6V 1A4, 764-3409

  Regina: Social Adjustment Centre (Lloyd Schoenthal, Director), 329 College Ave. E., S4N 0V9, 352-9601

  Saskatoon: Social Adjustment Centre (Bertha Ouellette, Director), 419 Ave. E South, S7M 1S4, 652-8951

- **Out-patient rehabilitation programs**

  Prince Albert: Native Alcohol Council Out-Patient Centre (Marcel Gerard, Director), Room 106, 1320 Central Ave., S6V 4W2, 922-7055

  Regina: Native Crisis Intervention and Drop-In Centre (Ms. Bernie Amyotte, Director), 329 College Ave. E., S4N 0V9, 522-4553

- **Field educator program**

  The field educator program is an outreach program involving education and prevention activities at the community level.

  A list of field educators follows:

  Ile a la Crosse (North West Area): Don Favel, 833-2430

  Lebret (South East Area): Eldon Lafontaine, 332-4598

  Regina (South West Area): Gary Daniels, 522-3681

  Saskatoon (North West Central): Tony Campone, 242-2035

- **Youth services program**

  The Youth Services Program provides prevention, intervention, and after-care services specifically for youth.

  A list of youth workers follows:

  Acting Coordinator: Lyell Daniels, 329 College Ave. E., Regina S4N 0V9, 522-3681

  Prince Albert: Lisa Pitzel, Room 106, 1320 Central Ave., S6V 4W2, 922-7055

  Regina: Randy LeDoux, 329 College Ave. E., S4N 0V9, 522-3681

NNADAP

The National Native Alcohol and Drug Abuse Program offers treatment, prevention, training, and research services for Status Indians on reserve. Information on this program is available from the Regional NNADAP Consultant, Ms. Bobbie Roberts, at Health and Welfare Canada, Medical Services Branch, 1855 Smith St., Regina S4P 2N5, 780-7449.

- **In-patient rehabilitation centres**

  Fort Qu'Appelle: New Dawn Valley Centre (Judie Julien, Administrator), Box 188, S0G 1S0, 332-5637

  Kamsack: Kamsack Union Hospital (Paul Ratushny, Administrator), P.O.Box 429, S0A 1SO, 542-2635 or 236-3602

  Meadow Lake: Mistahey Musqua Treatment Centre (Marilyn Sinclair, Executive Director), c/o Meadow Lake Tribal Council, P.O. Box 1360, S0M 1V0, 837-2184

  Melfort: Sakwatamo Lodge (Art Fourstar, Executive Director), P.O. Box 3917, S0E 1A0, 864-3631 or 864-3632

  North Battleford: Red Pheasant Treatment Centre (Alma Favel-King, Executive Director), c/o Battlefords Indian Health Centre Alcohol and Drug Abuse Program, Box 250, S9A 2Y1, 445-7734

  Onion Lake: Ekweskeet Rehabilitation Centre (George Long, Executive Director), S0M 2E0, 344-2094

  Sandy Lake: Cree Nations Treatment Haven (Priscilla Joseph, Executive Director), P.O.Box 340, Canwood S0J 0K0, 468-2072

- **Out-patient program**

  Stony Rapids: Dene Salya Koe Inc., Athabasca Alcohol & Drug Project (Ron Blinn, Executive Director), S0J 2R0, 439-2178

- **Prevention services**

  There are 50 projects serving 64 Bands in Saskatchewan.

Detox centres

Patients stay in a detox centre program an average of 10 days for the purpose of withdrawal from alcohol and other drugs.

While programming in detox centres varies, the primary purpose is to provide a safe environment for withdrawal, a preliminary assessment, and appropriate referral.

In locations where there are no detox centres, detoxification may take place in hospital, or in mild cases on an out-patient basis under the guidance of a physician.

Severe cases, where 24 hour medical supervision is required, should be admitted to hospital.

List of detox centres

Kipling: Kipling Memorial Hospital, c/o Moose Mountain Alcohol & Drug Abuse Society, Box 699, S0G 2S0, 736-2363

Lloydminster: Walter A. "Slim" Thorpe Recovery Centre, 4204-54th Ave., Alberta T9V 2R6, (403) 875-8890

Moose Jaw: Angus Campbell Centre, Box 118, S6H 4N7, 693-5977

Regina: Detox Centre, 2839 Victoria Ave., S4T 1K6, 522-5662

Saskatoon: Larson Intervention House, Inc., 130 Ave. O South, S7M 2R5, 244-1385

In-patient rehabilitation programs

In-patient rehabilitation programs are generally 14 to 28 days. The programs usually consist of drug and alcohol education on the nature of addictions through films and lectures, individual and group counselling, a component of family involvement, and attendance at Alcoholics Anonymous, Narcotics Anonymous, or other self-help meetings. Topics covered during the course of the program may include sexuality, self-esteem, suicide, spirituality, nutrition, exercise, stress, relaxation, and relapse prevention. Most accept only those 18 and over, although younger patients may be admitted under certain circumstances. The Whitespruce Youth Treatment Centre is the provincial treatment centre for youth aged 12 to 18.

List of in-patient rehabilitation programs (for SNACC and NNADAP programs see pages 91-92):

Estevan: St. Joseph's Treatment Centre (Verna Styer, Director), c/o St. Joseph's Hospital, 1401 - 1st St., S4H 0A3, 634-3604

Ile a la Crosse: Northwest Alcohol and Drug Abuse Centre (Martin Jacobsen, Director), Box 129, S0M 1C0, 833-2463

Indian Head: Pine Lodge Treatment Centre (Roly Gatin, Director), Box 457, S0G 2K0, 695-2251

Lloydminster: Walter A. "Slim" Thorpe Recovery Centre, (Bill Hewitt, Director) 4204 - 54th Ave., Alberta T9V 2R6, (403) 875-8890

Regina: Regina Rehabilitation Centre, (Ron Fleming, Supervisor) 2140 Hamilton St., S4P 2V7, 787-4624

St. Louis: St. Louis Alcoholism Rehabilitation Centre (Impaired Driver Treatment Program) (Linden Davis, Director), Box 220, S0J 2C0, 422-8533. This program is specifically for those referred by the courts or corrections system.

Saskatoon: Calder Rehabilitation Centre (Al Hergott, Supervisor), 230 Ave. R South, S7K 2H6, 933-5847 (new address after May 1, 1989: 2003 Arlington Ave., S7J 2H6, 933-5847)

Yorkton: Whitespruce Youth Treatment Centre (John Scholten, Director), P.O.Box 1411, S3N 3G3, 786-6225 ext. 210

Out-patient services

Generally out-patient services provide education; assessment; individual, group, and couples counselling; family therapy; referral; and community education services.

List of out-patient rehabilitation programs (for SNACC and NNADAP programs see pages 91-92):

Buffalo Narrows: Kiyenaw Out-Patient Centre (Linda Peterson, Director), Box 460, S0M 0J0, 235-4643

Creighton: CADAC Out-Patient Centre (Laurel Mackie, Director), 430 Main St., Box 760, S0P 0A0, 688-8291

Cumberland House: Pine Island Crisis Centre (Joseph Goulet, Director), Box 218, S0E 0S0, 888-2155

Humboldt: George Bailey Out-Patient Centre (Reg Ward, Director), 940 - 7th Ave. W., Box 2764, S0K 2A0, 682-3249

Ile a la Crosse, Northwest Alcohol and Drug Abuse Centre (Martin Jacobsen, Director), Box 129, S0M 1C0, 833-2463

Kindersley: Danny Fisher Centre (Mary Muir, Director), Box 1688, S0L 1S0, 463-4464

Kipling: Moose Mountain Alcohol and Drug Abuse Society (Dwayne Cameron, Director), Kipling Memorial Hospital, Box 699, S0G 2S0, 736-2363

La Loche: Clearwater Alcohol Rehabilitation and Education Centre, Inc. (Theresa Grandbois, Director), Box 98, S0M 1G0, 822-2020

La Ronge: Mitho Menoo Centre (La Ronge Council on Alcohol & Drug Education, Inc.), Box 1185, S0J 1L0, 425-2882

Meadow Lake: Robert Simard Centre (Northland Alcohol and Drug Society, Inc.) (Wilf Cardinal, Director), Box 2617, S0M 1V0, 236-4408

Melfort: North East Council on Alcohol and Drug Abuse (NECADA) (Rick Peters, Director) Addictions Counselling Unit, Melfort Union Hospital, Box 1480, S0E 1A0, 752-2811 ext. 260

Melville: Saul Cohen Centre (Kathy Donovan, Director), Box 164, S0A 2P0, 728-2629

North Battleford: Battlefords Alcohol and Drug Abuse Corporation (BADAC) (Russell Dann, Doris Leffler, Counsellors), 1261 - 101st St., Box 1595, S9A 3W1, 446-6161

Prince Albert: Prince Albert Council on Alcohol and Drug Abuse (PACADA) (Robert Flannigan, Director), 1212 Central Ave., S6V 4V8, 763-2631

Regina: Regina Out-Patient Clinic (Jerry White, Coordinator), 2140 Hamilton St., S4P 3V7, 787-4628

Sandy Bay: Sandy Bay Rehab Centre (Ann Cardinal, Director), Box 40, S0P 0G0, 754-2050

Saskatoon: Calder Out-Patient Clinic (Jean Dunlop, Co-ordinator), 503 Canterbury Towers, 224 - 4th Ave. S., S7K 2H6, 933-5867

Yorkton: Parkland Alcohol and Drug Abuse Society (Carol Horvath, Director), 29 Livingstone St., S3N 0R2, 783-5777

Private fee-for-service programs

In addition to the resources listed above for which there is no cost to patients, there are many private programs which charge a fee for services.

Hospitals

Hospital services vary from community to community. Those that may be offered include detoxification, social services, and psychiatric care.

Half-way houses

The half-way house is meant to provide a transition period where patients may start to stabilize and learn the skills necessary for independent living. Patients stay until it is felt they are stable enough to live alone, generally a minimum of three months. During this time they are encouraged to find employment to enable them to contribute to household costs.

List of half-way houses:

North Battleford: Hopeview Recovery Home, 1891 - 96th St., S9A 0J1, 445-0666

Regina: Recovery Manor, 2825 Victoria Ave., S4T 1K6, 522-5763

Saskatoon: Crysler Residence, 323 Ave. R South, S7M 2Z2, 384-0777

Employee Assistance Program (EAP)

EAP is a program set up to identify employees whose job performance is affected by alcohol-related and other problems. Based on indicators such as increased absenteeism and inefficiency, employees are evaluated and referred to appropriate resources in the community. Employees who refuse such treatment may be suspended. While employees are in the program all their rights and interests such as seniority and pension plan are protected.

EAP: SADAC, 3475 Albert St., Regina S4S 6X6, 787-4642

Self-help groups

The purpose of most self-help groups is to provide support and encouragement to members who find themselves in difficult situations or facing specific problems. Members share experiences and feelings as well as information. Self-help rather than reliance on professionals is a major tenet.

In addition to the self-help groups listed in this section, others are listed in the Family Support section. The Saskatchewan Self-Help Development Unit, 410 Cumberland Ave. N., Saskatoon S7N 1M6, has an Information and Referral Line (652-7817) and keeps a current listing of Saskatchewan self-help groups which deal with a variety of issues.

Alcoholics Anonymous

Regina Central Office: 12 - 2425 - 13th Ave., S4P 0W1, 352-7500

Saskatoon Central Office: 311 - 220 - 3rd Ave. S., S7K 1M1, 665-6727

The above will provide information about other groups in various locations through the province. Alcoholics Anonymous is a voluntary group run by lay people whose goal is to help its members refrain from drinking. Meetings are held regularly. The AA program is based on the Twelve Steps.

It is important for alcohol-dependent patients to find an AA group with which they feel comfortable as AA groups vary considerably in terms of people and program content. For example, in Regina there is a choice of a gay/lesbian group and a nonsmokers group as well as more mainstream groups.

Narcotics Anonymous

La Ronge: Clear Point Group, Box 338, S0J 1L0, Gord 425-2394, Kate 425-3379

Moose Jaw: 926 Brown St., S6H 2Z2, Marlene, 694-1653, Darla, 963-3701

Regina: P.O. Box 3563, S4P 3A7, 757-6600

Saskatoon: c/o Third Ave. United Church, 304 - 3rd Ave. N., S7K 2J1, 652-0875, 382-7967

Narcotics Anonymous is for those who wish to overcome a drug dependency.

Professional support

There are many organizations which provide professional support. Some of these follow.

Alvin Buckwold Centre, 1319 Colony St., Saskatoon S7N 2Z1, 966-1070. (Mailing address: University Hospital, Saskatoon S7N 0X0.) This centre is part of the Pediatrics Department at University Hospital in Saskatoon and deals with children who have fetal alcohol syndrome as well as other developmental problems.

Continuing Medical Education Program (Dr. Oli Laxdal), University of Saskatchewan Medical School, Saskatoon S7N 0W0, 966-7787. CME sponsors conferences, seminars, speeches, and workshops throughout the province on many topics including those that are alcohol- and drug-related. A list of speakers is available to rural and urban district medical societies. CME also co-sponsors a phone-in service which makes tapes containing information on drug therapy available to physicians. The phone number for this service is 652-1160.

Saskatchewan Alcohol and Drug Abuse Commission, Head Office, T.C. Douglas Building, 3475 Albert St., Regina S4S 6X6, 787-4085 or toll-free 1-800-667-7560 (new address after June 1, 1989: 3211 Albert St., Regina S4S 5W6, 787-4085, 1-800-667-7560). SADAC has many resources which may be of assistance to the physician, including audio-visual and library services. One program of particular interest may be the annual Practice Enrichment Awards, where SADAC provides bursaries for specialized courses to selected physicians who wish to

increase their knowledge base in the area of drug- and alcohol-related problems. Another program of interest to the physician may be the Professional Awareness Program: one day sessions provide information on alcohol and drug use and abuse, communication skills for assessment and intervention, and accessing referral services.

Saskatchewan Institute on Prevention of Handicaps, Box 81, University Hospital, Saskatoon S7N 0X0, 966-2512. The Institute is a useful resource for information about fetal alcohol syndrome.

S.P.A.R.C. (Tony Cosgrave), Saskatchewan Medical Association, 211 Fourth Ave. S., Saskatoon S7K 1N1, 244-2196. The Saskatchewan Physicians at Risk Committee (S.P.A.R.C.) is composed of both recovering physicians and those with expertise in the treatment of addictions. It is a Standing Committee of the Saskatchewan Medical Association with joint membership from the College of Physicians and Surgeons. S.P.A.R.C.'s mandate basically is to assist those physicians who have an alcohol- and/or drug-related problem and to get them onto the road to recovery as soon as possible so that they may again serve their communities to the best of their professional abilities.

Associated resources

Non-medical emergencies

Alcohol-dependent patients and their families may be involved in crises requiring immediate intervention. Examples of such crises include lack of accommodation and food due to financial distress, and violent situations involving battering and sexual assault. Groups that may be able to provide emergency assistance include Government of Saskatchewan Department of Social Services, food banks, churches, the Salvation Army, rape crisis and sexual assault lines, and shelters for battered women and children. In an emergency situation the following organizations can be contacted for information, referral, and assistance.

North East Crisis Intervention Centre Inc., 100 Bemister Ave. E., Melfort S0E 1A0, 752-9455 (24 hour crisis line) or 752-9464 (business phone).

Prince Albert Mobile Crisis Unit Cooperative Ltd., 1100 - 1st Ave. E., S6V 2A7, 764-1039 (day) or 764-1011 (after hours).

Regina Mobile Crisis Services, 1109 - 11th Ave., S4P 0G4, 757-0127 or 787-3799.

Saskatoon Crisis Intervention Service Inc., 1410 - 20th St. W., S7M 0Z4, 933-6200.

South West Crisis Services Inc., 499 - 4th St. N.E., Swift Current S9H 2K1, 1-800-552-7437.

West Central Crisis Centre Inc., 2nd Floor - 113 - 2nd Ave. E., Box 2235, Kindersley S0L 1S0, 463-4357.

Suicide prevention

The suicide rate is high among those with alcohol dependency. Two groups able to provide information on the prevention of suicide follow.

Educators in Suicide Prevention (Tarie Kinzel, Bob Sims, Ed Kinzel), Box 1512, Saskatoon S7K 3R3, 242-9763 and 789-9912. This group provides a Foundation Workshop Program in Saskatchewan, to help professionals and others gain the skills necessary for suicide prevention. Speakers and consultation available.

Suicide Information and Education Centre, Alberta Division Canadian Mental Health Association, #210, 1615 - 10th Ave. S.W., Calgary, Alberta T3C 0J7, 403-245-3900.

Batterers' treatment programs

Batterers need treatment to break out of the cycle of their destructive behaviour. A few of the programs for batterers available in Saskatchewan are listed below. For information about others contact local Mental Health Clinics.

Alternatives, run jointly by Mental Health Clinic, 165 - 3rd Ave. S., Saskatoon S7K 1L8, 933-6500, and Saskatoon Pastoral Institute, 321A - 4th Ave. N., Saskatoon S7K 2L9, 934-0414. Referrals to Sharyn Swann, Mental Health Clinic.

Men Who Batter Treatment Program, co-sponsored by Prince Albert Mental Health Centre (Victoria Union Hospital, 1200 - 24th St. W., Prince Albert S6V 4N9, 953-3855) and the Prince Albert Branch of the John Howard Society (432 - 13th St. W., Prince Albert S6V 3G5, 764-6439). Referrals to Mrs. Mary Oleksiuk, John Howard Society.

Moose Jaw Mental Health Centre, Union Hospital, 455 Fairford St. E., S6H 1H3, 694-3750.

Regina Mental Health Clinic, 1942 Hamilton St., S4P 3V7, 787-1444.

Resources for specific populations

There are many services throughout the province geared to the needs of specific populations. For example, there are employment programs specifically for youth, women, and Native people. To find out about special government programs, including counselling, lifeskills, educational programs, financial assistance, and housing, physicians should contact the following.

Reference Canada (Federal programs and services), 1-800-667-7160 (in Regina only, 780-6683).

Provincial Inquiry Centre, 1-800-667-7570 (in Regina only, 667-7570).

In addition, local Women's Centres, Friendship Centres, libraries, provincial organizations such as Native Women's Association, and other community groups may have information about non-governmental programs and services for specific populations.

Resources for family support

Family Service Bureaus, Mental Health Clinics, Child and Youth Services, legal aid, literacy programs, daycare facilities, parenting courses such as STEP, Big Brother and Big Sister programs, shelters for battered women and children, welfare rights groups, YWCA and YMCA, and support groups for the victims of sexual abuse are among the resources available in many centres in Saskatchewan which may provide valuable assistance to the family.

The Provincial Association of Transition Houses of Saskatchewan (307 - 135 - 21st St. E., Saskatoon S7K 0B4, 652-6175) and the Saskatchewan Battered Women's Advocacy Network (2149 Albert St., Regina S4P 2V1, 1-800-667-9876 province-wide or 352-9121 in Regina) maintain lists of shelters and safe houses throughout the province for victims of battering.

Sexual Assault Services of Saskatchewan (302 - 115 - 2nd Ave. N., Saskatoon S7K 2B1, 244-2224) maintains a list of sexual assault lines and support groups throughout the province.

Other resources involved in providing family support are listed below.

List of alcohol- and drug-specific resources for family support:

Al-Anon/Alateen Information Service, #11 - 2425 - 13th Ave., Regina S4P 0W1, 522-7500

Al-Anon Information Services, P.O. Box 1184, Saskatoon S7K 3M2, 665-8434, Literature Distribution Centre, 8th Floor, Bessborough Hotel, Saskatoon.

The above have information about locations of Al-Anon, Alateen, pre-Alateen, and Al-Anon Adult Children groups throughout the province. **Al-Anon** Family Groups are a fellowship of relatives and friends of those with an alcohol dependency who share their experiences and provide each other with support in order to solve their common problems. **Alateen** is for youth ages 12 to 20 affected by someone's alcohol dependency. **Pre-Alateen** is for children (ages six to ten) of alcohol-dependent parents. **Al-Anon Adult Children** has a focus on adult children of alcohol-dependent parents.

Another Chance, c/o Calder Out-Patient Clinic, 503 - 224 - 4th Ave. S., Saskatoon S7K 2H6, Rick Kuckartz, 933-7442. To provide information and support to parents of youth in difficulty with substance abuse.

Central Literature (Dennis Stafford), 1865 Cameron St., Regina S4T 2T9, 352-4414. In addition to books and other information, Central Literature has current listings of groups such as Adult Children of Alcoholics.

Damascus Road Today (Al Dunlop, Director), 54 McDougall Crescent, Saskatoon S7L 5C1, 382-6361. Gospel orientation to alcohol dependencies and family counselling.

Families Anonymous, Regina Chapter (4457 Acadia Drive, Regina S4S 4T5, Jack or June, 586-3153); Saskatoon Chapter (c/o Calder Clinic, 230 Ave. R South, Saskatoon S7K 2H6, Vivian/Joe, 477-0222, Gloria, 477-0137; new address after May 1, 1989, 2003 Arlington Ave., Saskatoon S7J 2H6). Support and information for families of children and youth with problems including those that are alcohol- and drug-related.

Glen Elm Lutheran Church (Dan Pope, Minister of Counselling), 1815 Rupert St., Regina S4N 1W6, 789-2727. Introductory workshop for adult children of alcohol dependent parents.

Minto Family Life Education Centre, 200 Main St. S., Moose Jaw S6H 5S7, 694-8133. Introductory and follow-up programs for Adult Children of Alcoholics. For children ages 7 - 12, "The Elephant in the Living Room" and "The Mouse, The Monster, & Me".

Pride Canada Inc. (Parent Resources Institute for Drug Education), College of Pharmacy, University of Saskatchewan. Saskatoon S7N 0W0, Eloise Opheim 1-800-667-3747 (toll-free) or 975-3755. Drug information for families, public education, and action.

Saskatchewan Alcohol and Drug Abuse Commission (SADAC), 3475 Albert St., Regina S4S 6X6, 787-4085 (general information). SADAC and its funded agencies provide programs, services, and information for families. Several examples of programs follow.

Calder Rehabilitation Centre, 230 Ave. R South, Saskatoon S7K 2H6, 933-5847 (new address after May 1, 1989: 2003 Arlington Ave., Saskatoon S7J 2H6, 933-5847). One-week programs in summer and at Easter combining education and recreation for non-addicted children (ages 9-18) of alcohol/drug-dependent parents. Also a two-week live-in program for non-addicted adult members of families with alcohol/drug-dependent persons.

SADAC and Northwest Alcohol and Drug Abuse Centre, Box 129, Ile a la Crosse S0M 1C0. Ten-day camp for children of alcohol- and drug-dependent parents.

SADAC, A Better Way: Helping Children Say "No" to Alcohol and Drugs. An Awareness Program for Parents and Guardians. For further information about courses contact the local regional college or Randi Kelly at 787-7802.

SADAC, Peers Helping Peers. A program of peer support for youth within schools. For further information contact Carol Hamm at 787-4079.

List of local resources

For handy reference, fill in the phone numbers, addresses, and names of contact people for the resources in your area.

Al-Anon: _____

Alcoholics Anonymous: _____

Batterers' treatment program: _____

Crisis centre: _____

Detox centre: _____

Half-way house: _____

In-patient services: _____

Out-patient services: _____

Rape crisis and sexual assault line: _____

SADAC Regional Office: _____

Shelter for battered women: _____

Social Services: _____

Women's centre: _____

Other: _____

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In 1986 he received the Saskatchewan Order of Merit for his contribution to the health and well-being of the people of Saskatchewan. He has also received a Senior Life Membership in the Canadian Medical Association for forty years of medical practise and his significant contribution to medicine in Saskatchewan.

He currently resides in Mississauga, Ontario, where he is associated with the alcohol treatment program at the Credit Valley Hospital.

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